



5
Primary

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AI Mostafa

in
Maths



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Multiplication Tables and Charts



$1 \times 1 = 1$

$1 \times 2 = 2$

$1 \times 3 = 3$

$1 \times 4 = 4$

$1 \times 5 = 5$

$1 \times 6 = 6$

$1 \times 7 = 7$

$1 \times 8 = 8$

$1 \times 9 = 9$

$1 \times 10 = 10$

$1 \times 11 = 11$

$1 \times 12 = 12$

$2 \times 1 = 2$

$2 \times 2 = 4$

$2 \times 3 = 6$

$2 \times 4 = 8$

$2 \times 5 = 10$

$2 \times 6 = 12$

$2 \times 7 = 14$

$2 \times 8 = 16$

$2 \times 9 = 18$

$2 \times 10 = 20$

$2 \times 11 = 22$

$2 \times 12 = 24$

$3 \times 1 = 3$

$3 \times 2 = 6$

$3 \times 3 = 9$

$3 \times 4 = 12$

$3 \times 5 = 15$

$3 \times 6 = 18$

$3 \times 7 = 21$

$3 \times 8 = 24$

$3 \times 9 = 27$

$3 \times 10 = 30$

$3 \times 11 = 33$

$3 \times 12 = 36$

$4 \times 1 = 4$

$4 \times 2 = 8$

$4 \times 3 = 12$

$4 \times 4 = 16$

$4 \times 5 = 20$

$4 \times 6 = 24$

$4 \times 7 = 28$

$4 \times 8 = 32$

$4 \times 9 = 36$

$4 \times 10 = 40$

$4 \times 11 = 44$

$4 \times 12 = 48$

$5 \times 1 = 5$

$5 \times 2 = 10$

$5 \times 3 = 15$

$5 \times 4 = 20$

$5 \times 5 = 25$

$5 \times 6 = 30$

$5 \times 7 = 35$

$5 \times 8 = 40$

$5 \times 9 = 45$

$5 \times 10 = 50$

$5 \times 11 = 55$

$5 \times 12 = 60$

$6 \times 1 = 6$

$6 \times 2 = 12$

$6 \times 3 = 18$

$6 \times 4 = 24$

$6 \times 5 = 30$

$6 \times 6 = 36$

$6 \times 7 = 42$

$6 \times 8 = 48$

$6 \times 9 = 54$

$6 \times 10 = 60$

$6 \times 11 = 66$

$6 \times 12 = 72$

$7 \times 1 = 7$

$7 \times 2 = 14$

$7 \times 3 = 21$

$7 \times 4 = 28$

$7 \times 5 = 35$

$7 \times 6 = 42$

$7 \times 7 = 49$

$7 \times 8 = 56$

$7 \times 9 = 63$

$7 \times 10 = 70$

$7 \times 11 = 77$

$7 \times 12 = 84$

$8 \times 1 = 8$

$8 \times 2 = 16$

$8 \times 3 = 24$

$8 \times 4 = 32$

$8 \times 5 = 40$

$8 \times 6 = 48$

$8 \times 7 = 56$

$8 \times 8 = 64$

$8 \times 9 = 72$

$8 \times 10 = 80$

$8 \times 11 = 88$

$8 \times 12 = 96$

$9 \times 1 = 9$

$9 \times 2 = 18$

$9 \times 3 = 27$

$9 \times 4 = 36$

$9 \times 5 = 45$

$9 \times 6 = 54$

$9 \times 7 = 63$

$9 \times 8 = 72$

$9 \times 9 = 81$

$9 \times 10 = 90$

$9 \times 11 = 99$

$9 \times 12 = 108$

$10 \times 1 = 10$

$10 \times 2 = 20$

$10 \times 3 = 30$

$10 \times 4 = 40$

$10 \times 5 = 50$

$10 \times 6 = 60$

$10 \times 7 = 70$

$10 \times 8 = 80$

$10 \times 9 = 90$

$10 \times 10 = 100$

$10 \times 11 = 110$

$10 \times 12 = 120$

$11 \times 1 = 11$

$11 \times 2 = 22$

$11 \times 3 = 33$

$11 \times 4 = 44$

$11 \times 5 = 55$

$11 \times 6 = 66$

$11 \times 7 = 77$

$11 \times 8 = 88$

$11 \times 9 = 99$

$11 \times 10 = 110$

$11 \times 11 = 121$

$11 \times 12 = 132$

$12 \times 1 = 12$

$12 \times 2 = 24$

$12 \times 3 = 36$

$12 \times 4 = 48$

$12 \times 5 = 60$

$12 \times 6 = 72$

$12 \times 7 = 84$

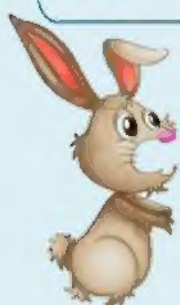
$12 \times 8 = 96$

$12 \times 9 = 108$

$12 \times 10 = 120$

$12 \times 11 = 132$

$12 \times 12 = 144$





Revision fractions



Proper fraction

is fraction less than 1 (<1)

Ex : $\frac{3}{5}$, $\frac{5}{7}$, $\frac{7}{12}$, $\frac{9}{15}$

the numerator is **less than** the denominator

Improper fraction

is fraction more than 1 (>1)

Ex : $\frac{13}{5}$, $\frac{9}{7}$, $\frac{17}{12}$, $\frac{9}{5}$

the numerator is **more than** the denominator

Mixed number

is consist of whole number and proper fraction

Ex : $2\frac{3}{5}$, $4\frac{5}{7}$, $5\frac{4}{6}$

Unite fraction

a fraction its numerator = 1

$\frac{1}{3}$, $\frac{1}{5}$, $\frac{1}{7}$, $\frac{1}{10}$

Equivalent fraction

$\frac{3}{10} = \frac{30}{100} = \frac{300}{1000} = \dots\dots$

$0.5 = 0.50 = 0.500 = \dots\dots$

⊙ Prime number :

it has only two factor 1 and itself

2 , 3 , 5 , 7 , 11 , 13 , 17 , 19 ,

⊙ **factors** of 15 is 1 , 3 , 5 and 15

prime factors of 15 is 3 and 5

1 is **common factor** of all number

0 is **common multiple** of all number

⊙ area of rectangle

= length × width **or** (L × W)

⊙ perimeter of rectangle

= (length + width) × 2 **or** (L+W)X2

⊙ area of square

= side length × itself **or** (S X S)

⊙ perimeter of square

= side length × 4 **or** (4 X S)

Example ① Convert in to mixed number :-

① $\frac{32}{6} = \dots\dots\dots$

② $\frac{24}{5} = \dots\dots\dots$

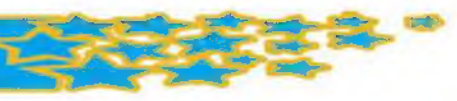
③ $\frac{17}{4} = \dots\dots\dots$

Exercise ① Convert in to mixed number :-

① $\frac{15}{7} = \dots\dots\dots$

② $\frac{23}{5} = \dots\dots\dots$

③ $\frac{19}{6} = \dots\dots\dots$



Example ② convert in to improper fraction :

① $2\frac{3}{4} = \dots\dots\dots$

② $3\frac{2}{5} = \dots\dots\dots$

③ $4\frac{1}{6} = \dots\dots\dots$

Exercise ② convert in to improper fraction :

① $5\frac{1}{4} = \dots\dots\dots$

② $2\frac{2}{3} = \dots\dots\dots$

③ $7\frac{2}{5} = \dots\dots\dots$

Example ③ write in expanded form :

① $34,562 = \dots\dots\dots$

② $405,609 = \dots\dots\dots$

Exercise ③ write in expanded form :

① $14,803 = \dots\dots\dots$

② $413,085 = \dots\dots\dots$

Example ④ write in standard form :

① $60,000 + 2,000 + 600 + 30 + 7 = \dots\dots\dots$

② $400,000 + 20,000 + 800 + 6 = \dots\dots\dots$

③ $30,000 + 8 = \dots\dots\dots$

Exercise ④ write in standard form :

① $20,000 + 5,000 + 100 + 30 = \dots\dots\dots$

② $900,000 + 6,000 + 800 + 7 = \dots\dots\dots$

③ $80,000 + 500 = \dots\dots\dots$

Example ⑤ find the value of X

① $X - 324 = 426$, then $X = \dots\dots\dots$

② $564 + X = 827$, then $X = \dots\dots\dots$

Exercise ⑤ find the value of X

① $X - 54 = 46$, then $X = \dots\dots\dots$

② $231 + X = 400$, then $X = \dots\dots\dots$

Example ⑥ put the sign ($>$, $=$, $<$)

① 60×40 700×3

② 0.45 0.5

Exercise ⑥ put the sign ($>$, $=$, $<$)

① 500×7 700×5

② 3.15 2.5



Unit 1

Lesson 1

Decimals to thousandths

Learn

- A **decimal** is a number that uses a decimal point as **563.174**
- A **decimal** has one or more digits to the right of decimal point

The place Value and the value Chart

	5	6	3	.	1	7	4
	↓	↓	↓	↓	↓	↓	↓
Place Value	Hundreds	Tens	Ones	Point	Tenths	Hundredths	Thousandths
The Value	500	60	3		0.1	0.07	0.004

Standard form: 563.174

We write the word **and** after the whole part

Word form: Five hundred sixty-three **and** one hundred seventy four **thousandths**

Unit form: 5 hundreds, 6 tens, 3 ones, 1 tenths, 7 hundredths, 4 thousandths

Example ①

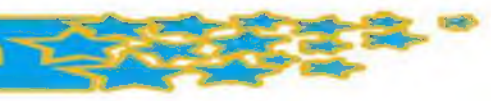
Write in decimals :

- ① $\frac{3}{10} = \dots\dots$ ② $\frac{23}{100} = \dots\dots$ ③ $\frac{342}{1000} = \dots\dots$ ④ $3\frac{7}{10} = \dots\dots\dots$
- ⑤ $\frac{24}{10} = \dots\dots$ ⑥ $\frac{67}{1000} = \dots\dots$ ⑦ $23\frac{5}{100} = \dots\dots\dots$ ⑧ $\frac{319}{100} = \dots\dots\dots$

Exercise ①

Write in decimals :

- ① $\frac{9}{10} = \dots\dots$ ② $\frac{2}{100} = \dots\dots$ ③ $\frac{7}{1000} = \dots\dots$ ④ $4\frac{4}{10} = \dots\dots\dots$
- ⑤ $\frac{15}{100} = \dots\dots$ ⑥ $\frac{452}{1000} = \dots\dots$ ⑦ $6\frac{3}{100} = \dots\dots\dots$ ⑧ $\frac{15}{1000} = \dots\dots\dots$



Example ②

Write in improper fraction :

① $3.6 = \dots\dots\dots$ ② $4.07 = \dots\dots\dots$ ③ $25.9 = \dots\dots\dots$ ④ $6.231 = \dots\dots\dots$

●Write the place value of the digit 5 in the following numbers :

4.56 2.345 0.754

5.32 54.8 520.64

● Write the value of the digit 3 in the following numbers :

23.4 2.345 0.437 1.253

● Complete

① 9 hundredths = ② 5 tenths = ③ 3 thousandths =

① 15 hundredths = ② 127 tenths = ③ 86 thousandths =

Exercise ②

Choose the correct Answer :

① $2.07 = \dots\dots\dots$ $\left[2\frac{7}{10}, 2\frac{7}{100}, 7\frac{2}{10}, 7\frac{2}{100} \right]$

② $0.18 = \dots\dots\dots \left[\frac{18}{10}, 1\frac{8}{10}, \frac{18}{100}, 1\frac{18}{100} \right]$

③ The value of the digit 5 in 21.351 is = [5 , 0.5 , 0.05 , 0.005]

④ The value of the digit 2 in 42.035 is = [2 , 0.2 , 0.02 , 0.002]

⑤ $\frac{18}{10} = \dots\dots\dots$ in decimal [0,018 , 0.18 , 10.8 , 1.8]

⑥ 8 Thousandths = [0.008 , 0.08 , 0.8 , 8,000]

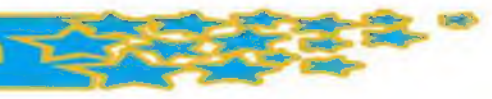
⑦ 25 tenths = [0.025 , 0.25 , 2.5 , 25]

⑧sixteen Thousandths = [16,000 , 1.6 , 0.16 , 0.016]

⑨ Which digit in the tenths place in the number 14.07 [0 , 4 , 1 , 7]

⑩ the place value of the digit 7 in the number 48,257 is

[*thousands* , *tenths* , *hundredths* , *thousandths*]



Example ③ Answer the following :

①

● 63.24

In standard form :

In word form :

.....

In unit form :

②

● 23.07

In standard form :

In word form :

.....

In unit form :

Exercise ③ Answer the following :

①

● 5.284

In standard form :

In word form :

.....

In unit form :

②

● 34.671

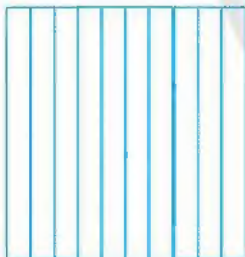
In standard form :

In word form :

.....

In unit form :

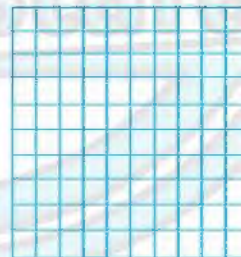
Example ④ Shade :



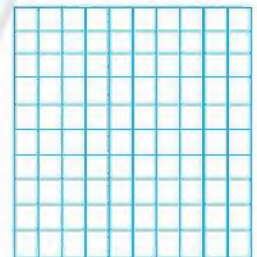
0.6



0.3

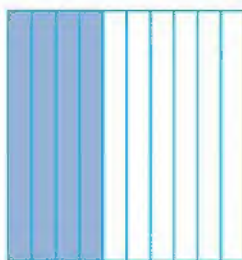


0.25

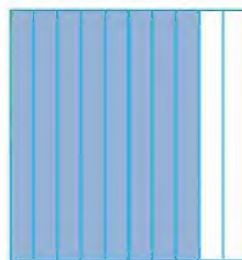


0.63

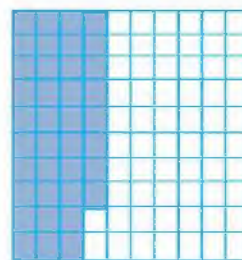
Exercise ④ Write the decimal :



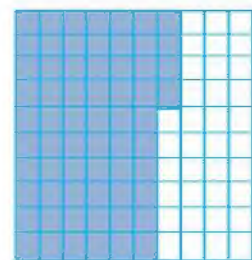
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Home Work

15

① Complete the following :

- ① 5.231..... (in expanded form)
- ② 1.002 (in expanded form)
- ③ $7 + 0.3 + 0.04 + 0.009 =$ (in standard form)
- ④ $40 + 0.8 + 0.07 =$ (in standard form)
- ⑤ Two and forty one thousandths =
- ⑥ seven hundred and seven hundredths =
- ⑦ ninety six and eight tenth = ⑧ 24 hundredths

② Choose the correct answer:

- ① 6 and 5 tenths = [0.65 , 5.6 , 6.5 , 6.05]
- ② $0.48 =$ [$\frac{48}{10}$, $4\frac{8}{10}$, $\frac{48}{100}$, $1\frac{48}{100}$]
- ③ The value of the digit 3 in 21.351 is = [3 , 0.3 , 0.03 , 0.003]
- ④ The value of the digit 5 in 42.035 is = [5 , 0.5 , 0.05 , 0.005]
- ⑤ thirty four and six hundredths [34.06 , 34.6 , 6.43 , 34.006]
- ⑥ 49 Thousandths = [0.49 , 4.09 , 0.049 , 4.009]
- ⑦ the place value of the digit 4 in the number 18,243 is
[thousands , tenths , hundredths , thousandths]



Lessons 2&3

●Place value shuffle

●Composing and decomposing decimals

Learn

Place value shuffle

● if a whole number or a decimals is multiplied by [10 , 100] , then each digit From this number moves to left [one , two] spot and The value of each digit increases [10 ,100] times .

H	T	O	.	Tenths	hundredths	thousandths
	2	5	.	8	7	4
2	5	8	.	7	4	

× 10

Example ④ Complete the following:

- | | | |
|------------------------------------|---------------------------------------|-------------------------------------|
| ① $2.5 \times 10 = \dots\dots$ | ② $14.52 \times 10 = \dots\dots\dots$ | ③ $43 \times 100 = \dots\dots\dots$ |
| ④ $18.129 \times 100 = \dots\dots$ | ⑤ $4.9 \times 10 = \dots\dots\dots$ | ⑥ $485.2 \times 100 = \dots\dots$ |
| ⑦ $0.027 \times 100 = \dots\dots$ | ⑧ $1.002 \times 10 = \dots\dots\dots$ | ⑨ $14.7 \times 100 = \dots\dots$ |

Exercise ④

- | | | |
|------------------------------------|---------------------------------------|-------------------------------------|
| ① $4.6 \times 10 = \dots\dots$ | ② $35.02 \times 10 = \dots\dots\dots$ | ③ $12 \times 100 = \dots\dots\dots$ |
| ④ $11.356 \times 100 = \dots\dots$ | ⑤ $0.27 \times 10 = \dots\dots\dots$ | ⑥ $96.14 \times 100 = \dots\dots$ |
| ⑦ $0.007 \times 100 = \dots\dots$ | ⑧ $50.45 \times 10 = \dots\dots\dots$ | ⑨ $3.008 \times 100 = \dots\dots$ |



$$6.5 \times 10 = 65$$

The value of a whole number increase when multiplying by 10
 The value of 6 increase when multiplying by 10 from 6. To 60..
 The value of 5 increase when multiplying by 10 from 0.5. To 5..



Learn Place value shuffle

- if a whole number or a decimals is divisible by [10 , 100] , then each digit

From this number moves to right [one , two] spot on the place value chart and

The value of each digit decreases [10 , 100] times.

$\div 10$

H	T	O	.	Tenths	hundredths	thousandths
	8	4	.	9	3	
		8	.	4	9	3

Example ① Complete the following:

- ① $2.5 \div 10 = \dots\dots\dots$

② $4.52 \div 10 = \dots\dots\dots$

③ $43 \div 100 = \dots\dots\dots$

④ $18.12 \div 100 = \dots\dots\dots$

⑤ $4.9 \div 10 = \dots\dots\dots$

⑥ $485 \div 100 = \dots\dots\dots$

⑦ $0.07 \div 100 = \dots\dots\dots$

⑧ $1.2 \div 10 = \dots\dots\dots$

⑨ $14.7 \div 100 = \dots\dots\dots$

Exercise ①

- ① $7.8 \div 10 = \dots\dots\dots$

② $4.52 \div 10 = \dots\dots\dots$

③ $43 \div 100 = \dots\dots\dots$

④ $18.12 \div 100 = \dots\dots\dots$

⑤ $4.9 \div 10 = \dots\dots\dots$

⑥ $485 \div 100 = \dots\dots\dots$

⑦ $0.07 \div 100 = \dots\dots\dots$

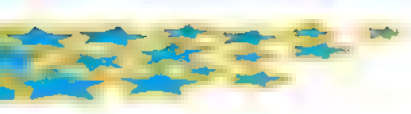
⑧ $1.2 \div 10 = \dots\dots\dots$

⑨ $14.7 \div 100 = \dots\dots\dots$



$$345 \div 10 = 34.5$$

The value of a whole numberdecrease.....when dividing by 10
 The value of 3 ...decrease... when dividing by 10 from ...300.... To ...30....
 The value of 4 ...decrease... when dividing by 10 from ...40.... To ...4....
 The value of 5 ...decrease... when dividing by 10 from ...5.... To ...0.5....



Learn 2 Composing and decomposing decimals

- **Composing:** decimals means [put together]
- **Decomposing:** decimals means [broken a part]
- you can decompose 843 .572 in different ways :

1st way

$$843.572 = 800 + 40 + 3 + 0.5 + 0.07 + 0.002$$

2nd way

$$843.572 = 843 + 0.5 + 0.07 + 0.002$$

3rd way

$$843.572 = 843 + 0.572$$

Example ① Compose each of the following :

① $4000 + 80 + 7 + 0.1 + 0.002 = \dots\dots\dots$

② $420 + 0.2 + 0.07 + 0.009 = \dots\dots\dots$

③ $60 + 8 + 0.6 + 0.01 + 0.003 = \dots\dots\dots$

④ $600 + 7 + 0.2 + 0.09 + 0.005 = \dots\dots\dots$

⑤ $700 + 0.4 + 0.009 = \dots\dots\dots$

⑥ $0.3 + 0.008 + 0.05 = \dots\dots\dots$

⑦ $90 + 0.9 + 0.009 = \dots\dots\dots$

⑧ $0.7 + 0.006 + 0.03 = \dots\dots\dots$

Exercise ① Compose each of the following :

① $100 + 30 + 7 + 0.2 + 0.001 = \dots\dots\dots$

② $541 + 0.6 + 0.004 = \dots\dots\dots$

③ $50 + 1 + 0.6 + 0.02 + 0.009 = \dots\dots\dots$

④ $400 + 7 + 0.09 + 0.001 = \dots\dots\dots$

⑤ $400 + 0.4 + 0.004 = \dots\dots\dots$

⑥ $0.6 + 0.007 + 0.03 = \dots\dots\dots$

⑦ $70 + 0.01 + 0.002 = \dots\dots\dots$

⑧ $0.01 + 0.001 + 0.1 = \dots\dots\dots$



Example ② Decompose the following numerals using expanded form :

- ① $640.078 = \dots\dots\dots$
- ② Twenty three and forty two thousandths = $\dots\dots\dots$
- ③ $65.12 = \dots\dots\dots$
- ④ Ninety one and six hundredths = $\dots\dots\dots$
- ⑤ $3000.428 = \dots\dots\dots$
- ⑥ Ninety two thousandths = $\dots\dots\dots$

Exercise ② Complete each of the following :

- ① $4.208 = \dots\dots\dots + 0.2 + 0.008$
- ② $\dots\dots\dots = 4 + 0.005 + 0.3$
- ③ $57 \text{ thousandths} = 0.007 + \dots\dots\dots$
- ④ $283 \text{ thousandths} = \dots\dots\dots + 0.2 + 0.08$
- ⑤ seventy and eight thousandths = $\dots\dots\dots + \dots\dots\dots$

Exercise ③ Match the cards that have the same numeral .

$78.42 \div 10$	$700 + 84 + 0.2$
78.42×10	$7000 + 800 + 40 + 2$
7842 hundredths	$78,000 + 400 + 20$
7842 tens	$7 + 0.842$
78.42×10	$70 + 8 + 0.4 + 0.02$

Home Work

15

① choose the correct answer :

- 1) The number four and forty one thousandths in standard form is
a- 4.41 b) 4.041 c) 410.4 d) 4.401
- 2) The value of the digit in tenths place in the number 7.024 is
a- 0.1 b- 0 c- 0.004 d- 0.02
- 3) Place value of the digit 4 in the number 27.614 is
a- Tenths b- hundredths c- thousandths d- ones
- 4) Which number of the following has 3 hundredths , 7 ones , 2 thousandths ?
a- 0.732 b- 3.72 c- 7.032 d- 3.702
- 5) Seventeen thousandths =
a- 170 b- 0.17 c- 0.017 d- 1.07
- 6) What is the standard form for : $60 + 3 + 0.5 + 0.004$?
a- 63.54 b- 63.054 c- 63.504 d- 6.354
- 7) 215 hundredths = [in expanded form]
a- $200 + 10 + 5$ b- $20 + 1 + 0.5$ c- $2 + 0.1 + 0.05$ d- $200 + 0.1 + 0.05$
- 8) $72.43 \times 10 =$
a- 7.243 b- 72.34 c- 7243 d- 724.3
- 9) $43.12 \div 10 =$
a- 4.312 b- 431.2 c- 4312 d- 43.21

Complete

- ① 12 hundredths = $10 +$
- ② = $600 + 3 + 0.3 + 0.006$
- ③ $45.12 \times 10 =$
- ④ $394.6 \div 100 =$
- ⑤ $43.67 \times$ = 4367
- ⑥ $493.7 \div$ = 49.37

**Learn**

to compare between two decimals begin with :

1st : Compare the whole number**2nd** : compare tenths**3rd** : compare hundredths**4th** : compare thousandths**Example ①** Circle the greater :

① 0.6 or 1.2

② 0.723 or 0.8

③ 4.5 or 4.18

④ 70 or 69.34

⑤ 4.1 or 4.001

⑥ 0.234 or 0.235

Example ② put the sign ($>$, $=$, $<$)

① 50.009 ○ 50.100

② 2.01 ○ 2.099

③ 45.057 ○ 45.1

④ 10. ○ 10.011

⑤ 34.5 ○ 34.500

⑥ 4.904 ○ $4 + 0.9 + 0.004$ **Exercise ①** Choose the correct answer :① 3.24 3.239 [$>$, $<$, $=$, \leq]② 19 hundredths 19 thousandths [$>$, $<$, $=$, \leq]

③ Which is the greater than 1.72 ? [1.27 , 1.07 , 1.8 , 1.072]

④ All the following are equal except [0.300 , 0.003 , 0.3 , 0.30]

⑤ Which of the following is true ?

a- $0.532 > 0.537$ b- $0.1 + 3 < 1.3$ c- $1.019 > 1.1$ d- $\frac{18}{10} = 1.8$

Home Work

30

① Compare the decimals using the symbols [$>$, $=$, $<$]

- | | |
|-----------------------|-----------------------|
| ① 0.3 ○ 0.123 | ② 0.013 ○ 0.031 |
| ③ 50.009 ○ 50.100 | ④ 45.057 ○ 45.100 |
| ⑤ 0.10 ○ 0.100 | ⑥ 0.480 ○ 0.480 |
| ⑦ 87.3 ○ 87.03 | ⑧ 2.197 ○ 2.2 |
| ⑨ 0.030 ○ 0.03 | ⑩ 1.7 ○ 2.04 |

Exercise ④ Choose the correct answer :

- ① 2.24 3.238 [$>$, $<$, $=$, \leq]
- ② 15 hundredths 15 thousandths [$>$, $<$, $=$, \leq]
- ③ Which is the greater than 3.75 ? [3.25 , 3.05 , 3.7 , 3.8]
- ④ All the following are equal except [0.400 , 0.004 , 0.4 , 0.40]
- ⑤ Which of the following is true ?
- | | |
|--------------------|--------------------|
| a- $0.357 > 0.537$ | b- $0.357 > 0.375$ |
| c- $0.573 > 0.537$ | d- $0.357 > 0.537$ |



Lesson 5

rounding decimals

Learn

1st way

Midpoint strategy

Example 1

Use midpoint strategy to round each of the following :

 $19.7 \approx \dots\dots\dots$ To the nearest whole number $3.54 \approx \dots\dots\dots$ To the nearest tenths $6.839 \approx \dots\dots\dots$ To the nearest hundredths $3.7218 \approx \dots\dots\dots$ To the nearest thousandths

Exercise 1

Use midpoint strategy to round each of the following :

 $4.37 \approx \dots\dots\dots$ To the nearest whole number $715.68 \approx \dots\dots\dots$ To the nearest tenths $0.852 \approx \dots\dots\dots$ To the nearest hundredths $1.8536 \approx \dots\dots\dots$ To the nearest thousandths

**Learn**2nd

way

rounding rule strategy**Example** Use place value strategy to round each of the following :① $0.7 \approx$ (to the nearest Whole number)② $5.49 \approx$ (to the nearest tenths)③ $0.874 \approx$ (to the nearest hundredths)④ $8.090 \approx$ (to the nearest tenths)⑤ $58.936 \approx$ (to the nearest ten hundredths)⑥ $2.7365 \approx$ (to the nearest thousandths)⑦ $69.4657 \approx$ (to the nearest thousandths)⑧ $3.875 \approx$ (to the nearest Whole number)**Exercise** Use place value strategy to round each of the following :**Round to the nearest whole number .**a- $0.7 \approx$ b- $10.18 \approx$ c- $24.58 \approx$ d- $4.87 \approx$ e- $12.287 \approx$ f- $0.006 \approx$ **Round to the nearest tenths .**a- $13.75 \approx$ b- $83.914 \approx$ c- $90.09 \approx$ d- $0.208 \approx$ e- $43.95 \approx$ f- $0.07 \approx$ **Round to the nearest hundredth :**a- $76.514 \approx$ b- $0.737 \approx$ c- $0.996 \approx$ d- $5.548 \approx$ e- $6.342 \approx$ f- $1.681 \approx$ **round to the nearest thousandth :**a- $2.4538 \approx$ b- $0.4532 \approx$ c- $1.7645 \approx$ d- $8.4397 \approx$ E- $4.7801 \approx$ f- $0.0049 \approx$

Home Work

15

① Complete :

- ① $4.478 \approx \dots\dots\dots$ To the nearest tenths .
- ② $0.5219 \approx \dots\dots\dots$ to the nearest thousandths .
- ③ $4.23 \approx \dots\dots\dots$ To the nearest whole number .
- ④ $6.452 \approx \dots\dots\dots$ to the nearest hundredths .

② Choose the correct answer :

- ① Round 8.099 to the nearest tenths $\approx \dots\dots\dots$

a- 7.00 b- 8.08 c- 8.090 d- 8.1

- ② Round 2.5698 to the nearest thousandths $\approx \dots\dots\dots$

a- 2.569 b- 2.560 c- 2.57 d- 2.568

- ③ $42.81 \approx \dots\dots\dots$ to the nearest whole number

a- 42.8 b- 43 c- 42 d- 44

- ④ $160.745 \approx \dots\dots\dots$ to the nearest tenths

a- 160.7 b- 160.8 c- 161.0 d- 160.75

- ⑤ Which number could be rounded to 0.58

a- 0.589 b- 0.57 c- 0.59 d- 0.577

- ⑥ $49.386 \approx 49.4$ to the nearest $\dots\dots\dots$

a- whole number b- tenths c- hundredths d- thousandths

- ③ *Mazen is planning a trip from Cairo to Wadi Elryan . he will travel 147.72 kilometers . round the distance to the nearest tenths ?*
-



Lesson 6

Estimating decimals sum

Learn **Estimation** is a way to get a number that is close to the actual answer but not exact

1st Front - end estimation strategy

Example ① Estimate each of the following sums by using front - end estimation

① $3.41 + 5.22 = \dots + \dots = \dots$

② $41.925 + 52.236 = \dots + \dots = \dots$

③ $16.79 + 3.65 = \dots + \dots = \dots$

④ $45.2 + 3.7 = \dots + \dots = \dots$

⑤ $77.6 + 6.54 = \dots + \dots = \dots$

⑥ $7.36 + 3.84 = \dots + \dots = \dots$

Exercise ① Estimate each of the following sums by using front - end estimation

① $2.71 + 5.22 = \dots + \dots = \dots$

② $3.785 + 12.035 = \dots + \dots = \dots$

③ $6.99 + 3.65 = \dots + \dots = \dots$

④ $8.450 + 15.3 = \dots + \dots = \dots$

⑤ $70.9 + 3.54 = \dots + \dots = \dots$

⑥ $47.36 + 3.84 = \dots + \dots = \dots$

2nd Benchmark decimals - 0 , $\frac{1}{2}$ and 1

Example ② Estimate each of the following sums by using benchmark

① $0.31 + 0.22 = \dots + \dots = \dots$

② $0.785 + 0.035 = \dots + \dots = \dots$

③ $6.42 + 3.15 = \dots + \dots = \dots$

④ $8.450 + 15.3 = \dots + \dots = \dots$

⑤ $70.9 + 3.54 = \dots + \dots = \dots$

⑥ $47.36 + 3.84 = \dots + \dots = \dots$



3rd Rounding strategy

Example ③ Estimate each of the following sums by using rounding

- ① $0.7 + 3.45 \approx \dots\dots\dots$ (to the nearest Whole number)
- ② $5.49 + 31.75 \approx \dots\dots\dots$ (to the nearest tenths)
- ③ $0.874 + 3.452 \approx \dots\dots\dots$ (to the nearest hundredths)
- ④ $8.090 + 1.47 \approx \dots\dots\dots$ (to the nearest tenths)
- ⑤ $58.936 + 41.643 \approx \dots\dots\dots$ (to the nearest ten hundredths)
- ⑥ $2,736.5 + 4,235.6 \approx \dots\dots\dots$ (to the nearest thousands)
- ⑦ $169.46 + 356.47 \approx \dots\dots\dots$ (to the nearest thousandths)
- ⑧ $3.875 + 15.15 \approx \dots\dots\dots$ (to the nearest tenths)

Exercise ② Estimate each of the following sums by using benchmark

- | | |
|--|---|
| ① $2.61 + 2.22 = \dots\dots + \dots\dots = \dots\dots$ | ② $3.159 + 12.035 = \dots\dots + \dots\dots = \dots\dots$ |
| ③ $61.4 + 3.65 = \dots\dots + \dots\dots = \dots\dots$ | ④ $8.52 + 35.3 = \dots\dots + \dots\dots = \dots\dots$ |
| ⑤ $13.9 + 3.14 = \dots\dots + \dots\dots = \dots\dots$ | ⑥ $37.36 + 3.44 = \dots\dots + \dots\dots = \dots\dots$ |

Exercise ③ Estimate each of the following sums by using benchmark

- ① $47.52 + 2.032 = \dots\dots + \dots\dots = \dots\dots$ (to the nearest tenths)
- ② $7.123 + 12.007 = \dots\dots + \dots\dots = \dots\dots$ (to the nearest hundredths)
- ③ $52.4 + 3.65 = \dots\dots + \dots\dots = \dots\dots$ (to the nearest whole number)



Home Work

15

① Estimate each of the following sums by using front - end estimation

① $3.45 + 5.63 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$

② $15.81 + 12.35 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$

③ $6.28 + 3.65 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$

④ $8.45 + 15.3 = \dots\dots + \dots\dots = \dots\dots\dots$

⑤ $8.9 + 3.84 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$

⑥ $7.36 + 13.34 = \dots\dots + \dots\dots\dots = \dots\dots\dots$

② Estimate each of the following sums by using benchmark

① $5.42 + 7.63 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$

② $4.75 + 23.25 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$

③ $6.85 + 3.65 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$

④ $15.6 + 35.2 = \dots\dots + \dots\dots = \dots\dots\dots$

⑤ $13.32 + 3.24 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$

⑥ $17.36 + 3.94 = \dots\dots + \dots\dots\dots = \dots\dots\dots$

③ Estimate each of the following sums by using benchmark

① $27.52 + 2.32 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$ (to the nearest tenths)

② $7.153 + 12.037 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$ (to the nearest hundredths)

③ $72.4 + 5.15 = \dots\dots\dots + \dots\dots\dots = \dots\dots\dots$ (to the nearest whole number)



Adding decimals

Learn To Add two decimals begin with :

- 1st : Add decimals in thousandths place 2nd : Add decimals in hundredths place
 3rd : Add decimals in tenths place 4th : Add whole part left the point

Example ① Add :

- ① $2.51 + 6.23 = \dots\dots\dots$ ② $85.14 + 4.73 = \dots\dots\dots$ ③ $3.425 + 7.751 = \dots\dots\dots$
 ④ $4.75 + 6.23 = \dots\dots\dots$ ⑤ $42.23 + 75.453 = \dots\dots\dots$ ⑥ $6.452 + 12.3 = \dots\dots\dots$
 ⑦ $0.32 + 5.6 = \dots\dots\dots$ ⑧ $8 + 1.75 = \dots\dots\dots$ ⑨ $45.7 + 51 = \dots\dots\dots$
 ⑩ $79.004 + 23.02 = \dots\dots\dots$ ⑪ $0.005 + 0.5 = \dots\dots\dots$ ⑫ $2.82 + 7.751 = \dots\dots\dots$
 ⑬ 3 tenths + 5 hundredths + 4 thousandths =
 ⑭ 8 thousandths + 4 thousandths = thousandths
 ⑮ 3 hundredths + 85 thousandths = thousandths

Exercise ① Add :

- ① $15.6 + 12.45 = \dots\dots\dots$ ② $26.14 + 4.035 = \dots\dots\dots$ ③ $0.23 + 54 = \dots\dots\dots$
 ④ 5 hundredths + 7 tenths + 2 thousandths =
 ⑤ 3 thousandths + 32 hundredths = thousandths

Home Work

20

① Add :

- | | | |
|---|--------------------------------------|-------------------------------------|
| ① $6.55 + 6.23 = \dots\dots\dots$ | ② $35.14 + 4.78 = \dots\dots\dots$ | ③ $3.625 + 6.751 = \dots\dots\dots$ |
| ④ $2.75 + 6.28 = \dots\dots\dots$ | ⑤ $22.22 + 35.453 = \dots\dots\dots$ | ⑥ $6.152 + 12.5 = \dots\dots\dots$ |
| ⑦ $0.3 + 5.65 = \dots\dots\dots$ | ⑧ $4 + 2.25 = \dots\dots\dots$ | ⑨ $43.6 + 21 = \dots\dots\dots$ |
| ⑩ $19.008 + 20.02 = \dots\dots\dots$ | ⑪ $0.001 + 0.1 = \dots\dots\dots$ | ⑫ $2.38 + 4.731 = \dots\dots\dots$ |
| ⑬ 5 tenths + 2 hundredths + 7 thousandths = | | |
| ⑭ 3 thousandths + 2 thousandths = thousandths | | |
| ⑮ 7 hundredths + 46 thousandths = thousandths | | |

② Choose the correct answer :

- $4.7 + 3.8 = \dots\dots\dots$
 a- 7.15 b- 8.5 c- 8.8 d- 15
- 4 hundredths + 35 thousandths = thousandths
 a- 0.39 b- 0.039 c- 75 d- 0.075
- The estimation of $49.872 + 50.011$ is
 a- 99 b- 100 c- 101 d- 102
- $0.03 + 0.003 = \dots\dots\dots$
 a- 0.6 b- 0.66 c- 0.33 d- 0.033
- 71 hundredths + 9 hundredths =tenths
 a- 88 b- 80 c- 800 d- 8



Lessons 8&11

Subtracting decimals

Example ① Estimate:

① $35.9 - 10.8$ estimate

② $2.419 - 1.240$ estimate

③ $0.951 - 0.729$ estimate

④ $2.62 - 1.59$ estimate

Exercise ① Estimate:

① $43.9 - 10.6$ estimate

② $5.352 - 2.242$ estimate

③ $0.842 - 0.731$ estimate

④ $8.47 - 6.53$ estimate

Example ② Find the result :

① $5.473 - 3.362 =$

② $6.4 - 5.378 =$

③ $12.74 - 0.359 =$

④ $0.9 - 0.889 =$

⑤ $0.5 - 0.375 =$

⑥ $8.36 - 5.72 =$

⑦ 57 thousandths - 12 thousandths = thousandths

Exercise ② Find the result :

① $5.324 - 2.342 =$

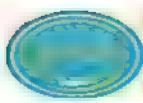
② $3.3 - 2.378 =$

③ $6.74 - 0.56 =$

④ $0.5 - 0.289 =$

⑤ 2 hundredths - 15 thousandths = Thousandths

⑥ 7 tenths - 3 thousandths = Thousandths



Answer :

- a man bought some goods for 306.7 L.E . and sold them for 366.95 L.E. find

The profit ?

.....

.....

- Ali has 24.75 L.E. and Ahmed has 15.25 L.E. find how much money Ali and Ahmed have together ?

.....

.....

.....

- Ibrahim had 53.75 L.E. he spent 35.05 L.E. find the remainder with him ?

.....

.....

.....

To think Complete :

① + 54.8 = 77.59

② 47.85 + = 100

③ 6.27 - = 3.286

④ - 41.41 = 3.8

Work Area



① Subtract :

- | | | |
|---|---------------------------------|--------------------------------|
| ① $8.55 - 6.23 = \dots\dots$ | ② $35.14 - 4.78 = \dots\dots$ | ③ $16.25 - 6.75 = \dots\dots$ |
| ④ $5.75 - 2.281 = \dots\dots$ | ⑤ $35.12 - 35.453 = \dots\dots$ | ⑥ $6.152 - 4.5 = \dots\dots$ |
| ⑦ $0.3 - 0.065 = \dots\dots$ | ⑧ $4 - 2.25 = \dots\dots$ | ⑨ $43.6 - 21 = \dots\dots$ |
| ⑩ $19.008 - 15.02 = \dots\dots$ | ⑪ $0.1 - 0.001 = \dots\dots$ | ⑫ $01.38 - 4.731 = \dots\dots$ |
| ⑬ 2 hundredths - 7 thousandths = | | |
| ⑭ 7 thousandths - 2 thousandths = thousandths | | |
| ⑮ 7 hundredths - 46 thousandths = thousandths | | |

② Choose the correct answer :

- $4.7 - 3.8 = \dots\dots$
 a- 7.15 b- 8.5 c- 1.1 d- 7.1
- 4 hundredths - 35 thousandths = thousandths
 a- 0.05 b- 0.005 c- 15 d- 0.015
- The estimation of $49.872 - 38.752$ is
 a- 9 b- 100 c- 101 d- 12
- $0.03 - 0.003 = \dots\dots$
 a- 0 b- 0.66 c- 0.33 d- 0.027
- 71 hundredths - 1 hundredths =tenths
 a- 7 b- 72 c- 80 d- 8



expression, equation and variables

Variables in Equation

Learn

mathematical expression

is statement contains numbers or numbers and symbol Separated by one or more operations as $[+, -, \times \text{ and } \div]$ and does not contain the equal sign $[=]$

Ex : $34 + 86$ and $56 + m$

Equation

is mathematical expression contains the equal sign $[=]$

EX : $24.8 - k = 17.5$

$4.2 + 1.5 = x$

$4.2 + 1.5 = 8.9 - 3.2$

Example ① Choose equation, expression or neither :

- ① $3.6 + 1.2 = x$ [equation or expression or neither]
- ② $14.78 - 3.4$ [equation or expression or neither]
- ③ $14 \times 7 = M$ [equation or expression or neither]
- ④ $3.4 + L$ [equation or expression or neither]
- ⑤ $15.8 + 7.13$ [equation or expression or neither]
- ⑥ Amir had 3.4 kg of apples and 2.7 kg of figs [equation or expression or neither]

Example ② Write an equation

- ① 12.5 plus a number equal 15
- ② subtract a number from 5.63 equal 3.154
- ③ Ahmed 52 L.E. and his sister has 84 L.E. the equation which represent the total amount is
- ④ Ali saved 147 L.E. in two weeks, if he saved 93 L.E. in the first week, then the equation that represent what he save in the second week is

**Learn** Variables in Equations

Solving equation means finding the variable in the equation .

Example Solve the following equations :

① $a + 19.5 = 30.8$

 $a = \dots\dots\dots$

② $23.15 + b = 31.37$

 $b = \dots\dots\dots$

③ $12.7 + 6.05 = c$

 $c = \dots\dots\dots$

④ $d + 45.17 = 57.8$

 $d = \dots\dots\dots$

⑤ $m - 4.25 = 11.75$

 $m = \dots\dots\dots$

⑥ $1.2 = 2.4 - r$

 $r = \dots\dots\dots$

⑦ $3.64 - h = 8.4$

 $h = \dots\dots\dots$

⑧ $7.45 - 3.42 = k$

 $k = \dots\dots\dots$

Exercise Solve the following equations :

① $f + 10.5 = 16.8$

 $f = \dots\dots\dots$

② $8.4 - n = 3.25$

 $n = \dots\dots\dots$

③ $y - 1.25 = 9.17$

 $y = \dots\dots\dots$

④ $15.6 + e = 28.37$

 $e = \dots\dots\dots$



Example ② Solve the equation :

① $8.23 + p = 10.24$ then $p = \dots\dots\dots$

② $t - 2.45 = 0.26$ then $t = \dots\dots\dots$

③ $15 - x = 8.23$ then $x = \dots\dots\dots$

④ $v + 45.8 = 64.9$ then $v = \dots\dots\dots$

Exercise ④ Find the value of variable in the following bar models :

①		x	
34.75		19.051	

then $x = \dots\dots\dots$

②		78.514	
a		29.125	

then $a = \dots\dots\dots$

③		35.7	
h		18.07	

then $h = \dots\dots\dots$

④		m	
16.47		12.03	

then $m = \dots\dots\dots$

⑤		73.015	
10.714		y	

then $y = \dots\dots\dots$

⑥		85.02	
c		53.63	

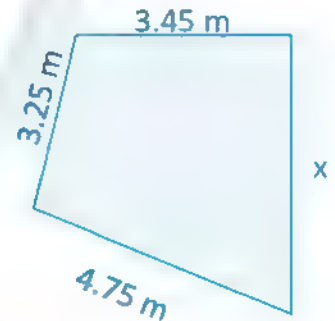
then $y = \dots\dots\dots$

To think if the perimeter of this shape is 16.70 m

What does x equal ? $\dots\dots\dots$

$\dots\dots\dots$

$\dots\dots\dots$



- ⑦ Ola needed 10 meters of wood to build a garden bed . She found 3.5 m in here garage how many more meters of wood does she need

For the bed ? $\dots\dots\dots$

- ⑧ the weight of Mariam is 35.235 kg . and the weight of Lucy is 42.012 kg .

What is there weight together ?

$\dots\dots\dots$

Home Work

12

① Choose the correct answer :

① If $p + 3.562 = 4.213$, then $p =$

a- 1

b- 2

c- 3

d- 2.001

② If $3.462 - x = 1.451$, then $x =$

a- 4.913

b- 2.001

c- 2.011

d- 4.914

③ If $m - 3.459 = 4.213$, then $m =$

a- 0.754

b- 1.672

c- 0.632

d- 7.672

④ from opposite bar model the value of $y =$

a- 13.4

b- 3.336

c- 10.456

d- 2.832

8.368	
y	5.03

⑤ Which of the following bar model is suitable the equation $5.01 - h = 3.17$?

a-

h	
5.01	3.17

b-

5.01	
h	3.17

c-

3.17	
5.01	h

d-

h	
3.17	1.84

② Solve each of the following equation :

① $2.342 + n = 3.418$

② $w - 4.143 = 6.150$

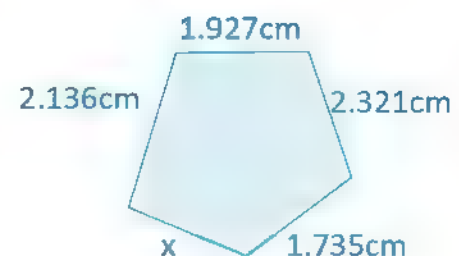
③ $5.235 + p = 10.462$

④ $c - 3.425 = 2.520$

⑤ $23.024 + k = 25.130$

③ In the opposite figure , the perimeter of the shape

Is 10.177 cm then the value of $x =$





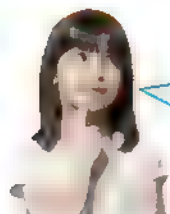
Lesson 4

Prime factorization

Learn

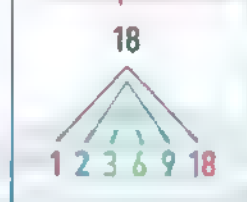
Prime factorization

Remember Find all factors of 18



But not all of these numbers are prime numbers !

Factor pairs tree



Factor rainbow



Factor T-chart

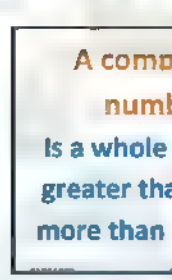
18	
1	18
2	9
3	6

, then the factors of 18 are : 1, 2, 3, 6, 9 and 18.



A prime number

Is a whole number has only 2 different factors 1 and itself



A composite number

Is a whole number greater than 1 has more than 2 factors

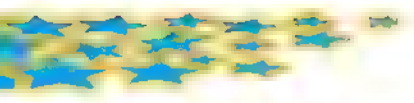
A prime number

	2	3	5	7	11	13	17	19	23	29	31	37
41	43	47	53	59	61	67	71	73	79	83	89	97

Note



- ⊙ 1 is neither prime nor composite because it has only one factor
- ⊙ 2 is the smallest prime number
- ⊙ All prime numbers are odd except 2



How can you write a number as a product of prime factor ?

Every composite number can be written as product of prime number . this product

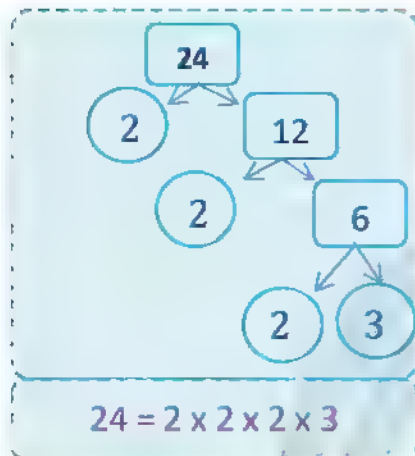
The **prime factorization** of a number .

Learn

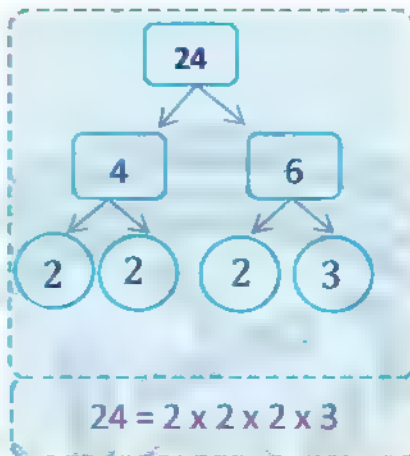
Find the prime factorization for 24

☐ For Composite

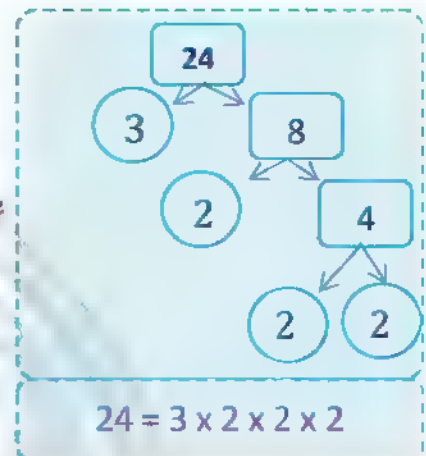
☐ For Prime



Or



Or



Example

Factorize to a prime factors :

12

12 =

30

30 =

28

28 =

16

16 =

45

45 =

40

40 =

**Example ②****Complete**

- ① 2 , 5 , 7 are the prime factors of
- ② 3 , 3 , 3 are the prime factors of
- ③ 2 , 2 , 5 are the prime factors of

Exercise ①**Factorize to its prime factor :**

15	18	36
15 =	18 =	36 =
9	16	63
9 =	16 =	63 =

Exercise ②**Complete**

- ① 2 , 2 , 2 are the prime factors of
- ② 2 , 3 , 3 are the prime factors of
- ③ 3 , 3 , 5 are the prime factors of



Home Work

15

① Complete

① 2 , 2 , 7 are the prime factors of

② 2 , 3 , 5 are the prime factors of

③ 2 , 5 , 7 are the prime factors of

② Factorize to its prime factor :

8

8 =

32

32 =

10

10 =

48

48 =

56

56 =

44

44 =



Lesson 5

Greatest common factor (GCF)

How can you find greatest common factor of 18 and 24 [GCF]

First way using listing method :

- 1- find the factor of each number
- 2- determine the common factors of these number
- 3- get the greatest factor of the common factor .

- factors of 18 : 1 , 2 , 3 , 6 , 9 , 18
- factor of 24 : 1 , 2 , 3 , 4 , 6 , 8 , 12 , 24
- common factors : 1 , 2 , 3 , 6
- the greatest common factor [GCF] : 6

18		24	
1	18	1	24
2	9	2	12
3	6	3	8
		4	6

G..C.F of 18 and 24 = 6

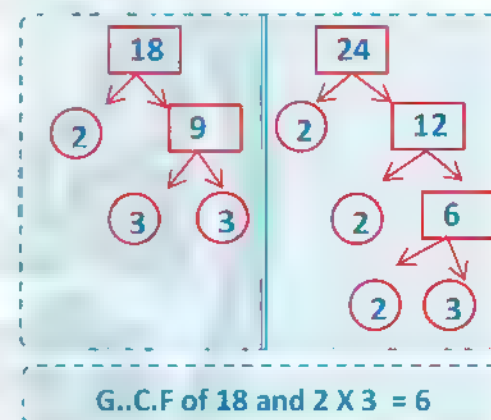
Second way using prim factorization :

- 1- factorize each number to its prime factors .
- 2- find the common prime factor .
- 3- find the product of this prime factor .

$$18 = 2 \times 3 \times 3$$

$$24 = 2 \times 2 \times 2 \times 3$$

$$\text{GCF} = 2 \times 3 = 6$$



Example 1 Find the [GCF] of the given numbers :

1 8 and 16

G..C.F of 8 and 16 =

2 12 and 18

G..C.F of 12 and 18 =



3

30 and 42

G..C.F of 30 and 42 =

4

24 and 32

G..C.F of 24 and 32 =

Exercise 1 Find the [G.C.F] of the given numbers :

1

40 and 50

G..C.F of 40 and 50 =

2

45 and 81

G..C.F of 45 and 81 =

3

12 and 18

G..C.F of 12 and 18 =

4

15 and 25

G..C.F of 15 and 25 =



Home Work

18

① Find the [G.C.F] of the given numbers :

①

15 and 20

G..C.F of 15 and 20 =

②

45 and 30

G..C.F of 45 and 30 =

③

21 and 42

G..C.F of 21 and 42 =

④

24 and 36

G..C.F of 24 and 36 =

⑤

16 and 18

G..C.F of 16 and 18 =

⑥

20 and 35

G..C.F of 20 and 35 =



Lessons 6 - 7

Identify multiples

Least common multiple ('L.C.M')

Learn

A multiple is the product of multiply the given number by other numbers

Zero is common multiple of all numbers

Ex : ① multiples of 2 are 0,2,4,6,8,10,12,14,16,18,20,..... and so on.

All even numbers are multiple of 2

② multiples of 3 are 0,3,6,9,12,15,18,21,24,27,30,..... and so on.

All numbers that the sum of its digit 3,6,9,12,15,18,..... are multiple of 3

③ multiples of 5 are 0,5,10,15,20,25,30,35,40,45,50,..... and so on.

All numbers that the ones digit is 0 or 5 are multiple of 5

Exercise ① List 4 multiple for each of the following

① 4 →

② 6 →

③ 8 →

④ 10 →

Learn

A common multiple is a multiple of two or more numbers

Least common multiple [L.C.M] IS smallest multiple [other than 0]

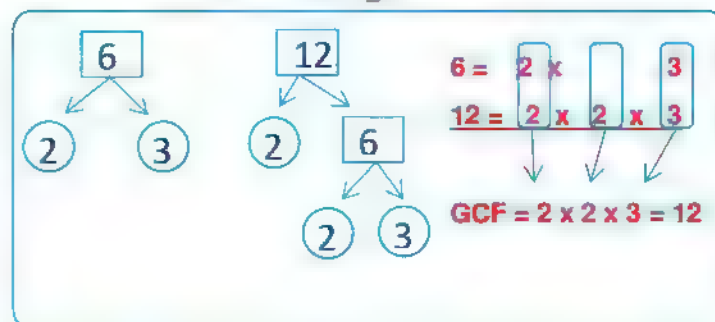
that two Or more numbers have in common .

Example ①

1st way

6 and 12
6 = 0 , 6 , 12 , 18 , 24 , 30 ,
12 = 0 , 12 , 24 , 36 ,
Common multiples: 0 , 12 , 24 ,
G.C.F is: 12

2nd way





Example ② find (L.C.M) for each of the following :

① 2 and 3

② 4 , 6 and 9

Exercise ④ find (L.C.M) for each of the following :

① 4 and 6

② 6 and 8

Exercise ② Choose the correct answer:

- ① which of the following is a multiple of 5 ? [52 , 56 , 14 , 45]
- ② The number that is not multiple of 3 is ... [3 , 21 , 13 , 36]
- ③ 20 is multiple of ... [3 , 6 , 8 , 10]
- ④ Which is a common multiple of 5 and 8 ... [20 , 40 , 35 , 45]
- ⑤ The L.C.M of 6 and 10 is [6 , 10 , 30 , 60]
- ⑤ The L.C.M of 2 and 5 is [5 , 10 , 30 , 60]
- ⑤ The L.C.M of 5 and 6 is [6 , 10 , 30 , 60]
- ⑤ The L.C.M of 2 , 8 and 6 is [24 , 45 , 48 , 80]



Home Work

15

① Choose the correct answer:

- ① The number that is multiple of 3 is ... [7 , 16 , 24 , 46]
- ② The number that is not multiple of 3 is ... [3 , 9 , 23 , 27]
- ③ 30 is multiple of ... [3 , 6 , 10 , all previous]
- ④ Which is a least common multiple of 5 and 10 ... [10 , 15 , 20 , 50]
- ⑤ The L.C.M of 3 and 9 ... [3 , 6 , 9 , 18]
- ⑥ The L.C.M of 4 and 6 ... [4 , 6 , 12 , 24]

② Complete :

- ① The common multiple of all numbers is
- ② All even numbers are multiple of
- ③ All numbers that the ones digit is 0 or 5 are multiple of
- ④ The L.C.M of 6 and 15 is
- ⑤ is L.C.M of 3 and 5

③ Find (L.C.M) for each of the following :

① 3 and 4

.....

.....

.....

② 10 and 8

.....

.....

.....



Lesson 8

Factors or multiples ?

Learn

$$3 \times 5 = 15$$



Factor Factor Multiple

3 and 5 are factors of 15

15 is multiples of 3 and 5

$$4 \times 7 = 28$$



Factor Factor Multiple

4 and 7 are factors of 28

28 is multiples of 4 and 7

Example Complete the following :

- ① If $2 \times 4 = 8$, then 2 and 4 are a factors of
- ② If $3 \times 7 = 21$, then 21 is a multiple of
- ③ 6 is a multiple of
- ④ 6 is a factor of
- ⑤ is a multiple of 8
- ⑥ is a factor of 8

Exercise Choose Factor or Multiple to each of the following :

- | | |
|----------------------|------------------------|
| ① 6 is a of 3 | [Factor or Multiple] |
| ② 4 is a of 12 | [Factor or Multiple] |
| ③ 15 is a of 3 | [Factor or Multiple] |
| ④ 24 is a of 8 | [Factor or Multiple] |
| ⑤ 14 is a of 7 | [Factor or Multiple] |
| ⑥ 9 is a of 27 | [Factor or Multiple] |
| ⑦ 8 is a of 4 | [Factor or Multiple] |
| ⑧ 5 is a of 30 | [Factor or Multiple] |
| ⑨ 10 is a of 5 | [Factor or Multiple] |
| ⑩ 6 is a of 18 | [Factor or Multiple] |



Relation between G.C.F and L.C.M

Example Find GCF and LCM for each of the following:

①

18 and 24

②

12 and 16

③

10 and 12

④

8 and 20

Exercise Find GCF and LCM for each of the following:

①

18 and 24

②



Home Work

25

① Choose the correct answer:

- ① The number 6 is a multiple of [3 , 12 , 24 , 60]
- ② The number 27 is not multiple of 3 is [3 , 9 , 7 , 27]
- ③ 30 is a factor of [3 , 6 , 10 , 30]
- ④ Which is L.C.M of 2 and 10 ... [10 , 15 , 20 , 50]
- ⑤ The G.C.F of 3 and 9 [3 , 6 , 9 , 18]

② Find GCF and LCM for each of the following:

①

6 and 8

②

12 and 18

③

15 and 12

④

9 and 36



Unit 3

Lesson 1

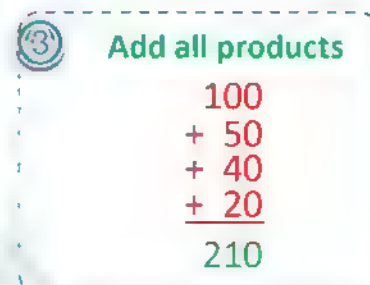
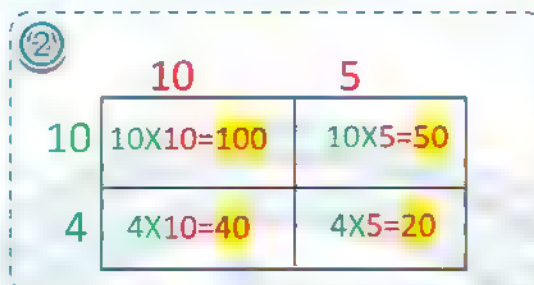
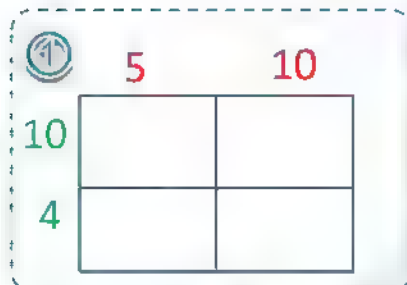
Using the area model to multiply

Learn

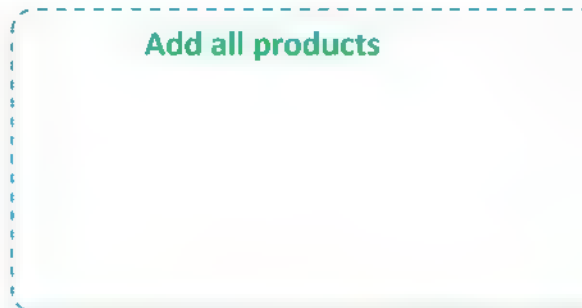
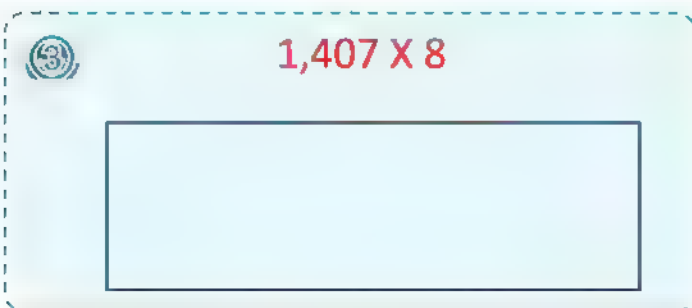
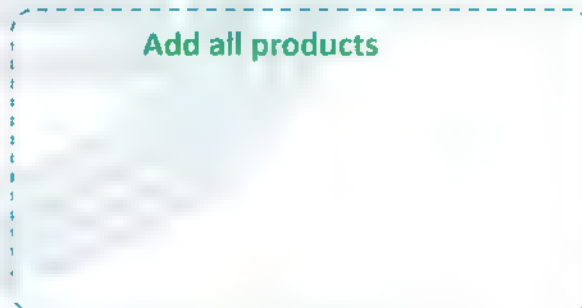
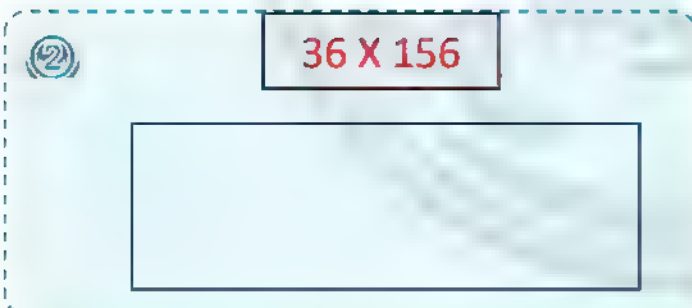
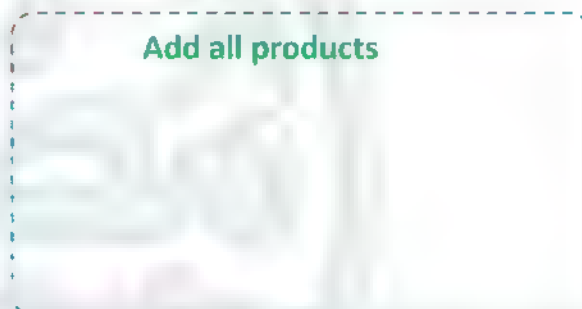
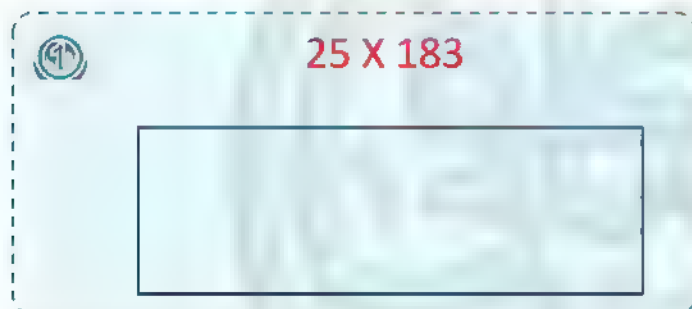
Area of rectangle = length \times width

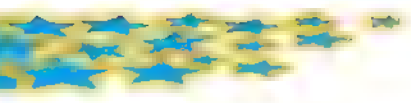
$$A = L \times W$$

We can use area of a rectangle to find 14×15 as following



Example ④ : Find the product of the following by using area model :

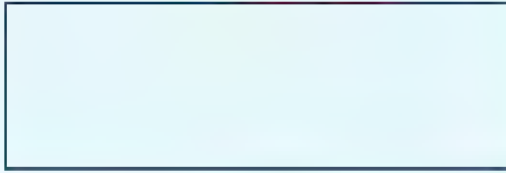




Exercise 1 Find the product of the following by using area model :

①

$$12 \times 18$$



Add all products

②

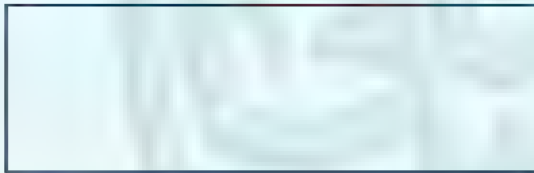
$$8 \times 523$$



Add all products

③

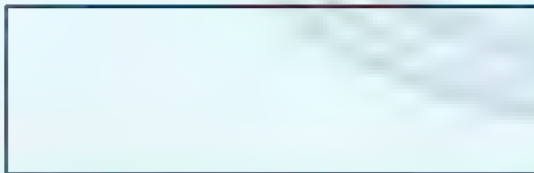
$$209 \times 17$$



Add all products

④

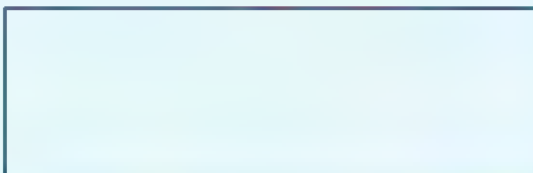
$$24 \times 235$$



Add all products

⑤

$$52 \times 853$$



Add all products



Home Work

24

① Find the product of the following by using area model :



12×25



572×93



201×32



7×462



37×25



13×125



Lessons 2 & 3

The Standard Multiplication

Multiplication problems in the real world

Learn

$$17 \times 2,345$$

1st

$$17 \times 2.345$$

$$\begin{array}{r} 2 \quad 3 \quad 3 \\ 2 \quad 3 \quad 4 \quad 5 \\ \times 1 \quad 7 \\ \hline 16,41 \quad 5 \end{array}$$

2nd

$$17 \times 2.345$$

$$\begin{array}{r} 2 \quad 3 \quad 4 \quad 5 \\ \times 1 \quad 7 \\ \hline 16,41 \quad 5 \\ + 2,34 \quad 50 \\ \hline \end{array}$$

3rd

$$17 \times 2.345$$

$$\begin{array}{r} 2 \quad 3 \quad 4 \quad 5 \\ \times 1 \quad 7 \\ \hline 16,41 \quad 5 \\ + 2,34 \quad 50 \\ \hline 39,86 \quad 5 \end{array}$$

Example 1

Find the product of the following

1 29×24

2 614×28

3 25×478

4 37×609

5 325×13

6 $4 \times 1,375$

7 12×425

8 $9 \times 2,054$

9 25×25

10 12×147

11 36×732

12 75×523



Exercise 1 Find the product of the following

① 15×25

② 126×45

③ 58×478

④ $7 \times 2,305$

Learn Estimating product

①

126	Estimate to	100
$\times 36$	Estimate to	$\times 40$
756		
+ 3,780		
<hr/> 4,536		

Close to 4,000

②

3,672	Estimate to	4,000
$\times 42$	Estimate to	$\times 40$
7,344		
+ 146,88		
<hr/> 154,224		

Close to 160,000

Exercise 2 Use the estimate by round the greatest place value then find The actual product

①

415	Estimate to	.....
$\times 21$	Estimate to	\times
.....		
\times		
.....		

Close to

②

785	Estimate to	.....
$\times 13$	Estimate to	\times
.....		
\times		
.....		

Close to

③

183	Estimate to	.....
$\times 17$	Estimate to	\times
.....		
\times		
.....		

Close to

④

635	Estimate to	.....
$\times 23$	Estimate to	\times
.....		
\times		
.....		

Close to



Multiplication problems in the real world

① Mona has a restaurant in Luxor , she sold 402 kebabs in week , she makes Each kebab with 83 grams of meat , how many grams of meat did she use ?

② Ahmed saved 123 pounds , Logy saved 12 times as Ahmed ,
How much money logy saved ?

③ shirts in the season costs 125 pounds . sweaters cost 270 pounds . Yara and Her friends bought 12 shirts and 13 sweaters . how much money they paid ?



Home Work

32

① : Find the product of the following

①

35×14

②

6×129

③

15×408

④

17×742

⑤

325×18

⑥

$6 \times 1,403$

⑦

11×458

⑧

$6 \times 2,020$

⑨

325×43

⑩

$4 \times 2,321$

⑪

16×425

⑫

$4 \times 2,054$

② Loucy saved 246 pounds, Linda saved 15 times as Loucy,

How much money Linda saved?



Unit 4

Lessons 1-2

Division by a two-digit number Estimating quotient

Remember

$$17 \div 3 = 5 \text{ R } 2$$

\downarrow \downarrow \downarrow \downarrow
 Dividend Divisor Quotient Remainder

Notes

- Always the remainder must be less than the divisor.
- The dividend = divisor \times quotient + remainder

Multiplying Facts

$$\begin{aligned}
 2 \times 4 &= 8 \\
 20 \times 4 &= 80 \\
 200 \times 4 &= 800 \\
 2000 \times 4 &= 8000
 \end{aligned}$$

Division Facts

$$\begin{aligned}
 8 \div 2 &= 4 \\
 80 \div 2 &= 40 \\
 800 \div 2 &= 400 \\
 8000 \div 2 &= 4000
 \end{aligned}$$

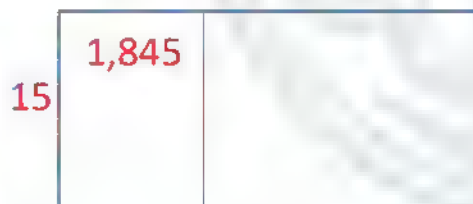
Learn Area model to divide

Notes

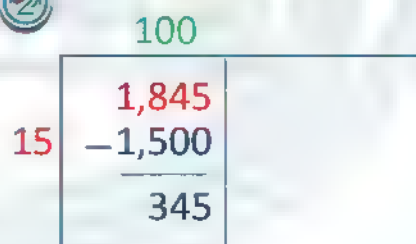
Area of rectangle = $L \times W$

Divide : $1,845 \div 15$ by using the area model

①



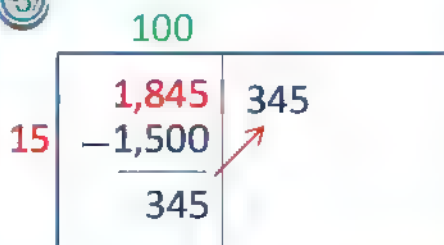
②



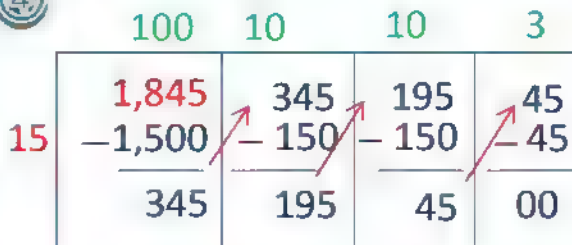
Notes

- $15 \times 1 = 15$
- $15 \times 2 = 30$
- $15 \times 3 = 45$
- $15 \times 10 = 150$
- $15 \times 100 = 1500$

③



④



The quotient = $100 + 10 + 10 + 3 = 123$



Example1 Use the area model to solve :

① $2,207 \div 7 = \dots\dots\dots$

② $492 \div 4 = \dots\dots\dots$

③ $9,798 \div 71 = \dots\dots\dots$

④ $7,391 \div 35 = \dots\dots\dots$

⑤ $2,968 \div 14 = \dots\dots\dots$

⑥ $3,216 \div 15 = \dots\dots\dots$

Exercise1

⑦ $870 \div 6 = \dots\dots\dots$

⑧ $2,556 \div 24 = \dots\dots\dots$



Learn

Estimating quotient

We use front end estimation

①

$$870 \div 26 = \dots\dots\dots$$

To the nearest
Hundred
↓

To the nearest
ten
↓

$$900 \div 30 \approx \dots 30 \dots$$

②

$$6,465 \div 32 = \dots\dots\dots$$

To the nearest
thousand
↓

To the nearest
ten
↓

$$6,000 \div 30 \approx \dots 200 \dots$$

Example 1

Estimate the quotient :

①

$$5,814 \div 47 = \dots\dots\dots$$

②

$$6,397 \div 28 = \dots\dots\dots$$

③

$$1,448 \div 48 = \dots\dots\dots$$

④

$$7,061 \div 23 = \dots\dots\dots$$

⑤

$$6,658 \div 69 = \dots\dots\dots$$

⑥

$$1,064 \div 19 = \dots\dots\dots$$

⑦

$$3,261 \div 14 = \dots\dots\dots$$

⑧

$$7,550 \div 83 = \dots\dots\dots$$

⑨

$$1,536 \div 16 = \dots\dots\dots$$

Exercise 1

Estimate the quotient :

①

$$576 \div 18 = \dots\dots\dots$$

②

$$8,397 \div 38 = \dots\dots\dots$$

③

$$1,848 \div 48 = \dots\dots\dots$$

④

$$9,061 \div 33 = \dots\dots\dots$$

⑤

$$5,658 \div 49 = \dots\dots\dots$$

⑥

$$1,064 \div 13 = \dots\dots\dots$$



Home work

10

① Use the area model to solve :

① $492 \div 4 = \dots\dots\dots$

② $2,145 \div 15 = \dots\dots\dots$

③ $8,125 \div 25 = \dots\dots\dots$

④ $8,568 \div 45 = \dots\dots\dots$

⑤ $3,770 \div 26 = \dots\dots\dots$

⑥ $16,926 \div 26 = \dots\dots\dots$

② Estimate the quotient :

① $776 \div 38 = \dots\dots\dots$

.....

② $4,397 \div 37 = \dots\dots\dots$

.....

③ $1,948 \div 18 = \dots\dots\dots$

.....

④ $8,061 \div 36 = \dots\dots\dots$

.....

⑤ $4,658 \div 49 = \dots\dots\dots$

.....

⑥ $1,064 \div 14 = \dots\dots\dots$

.....



Lessons 3-4

Standard algorithm to divide

Learn

MATH IDEA

The order of division is as follows:

① Divide

② Multiply

③ Subtract

④ Bring down

Repeat this order until the division is complete.

① $5325 \div 25 =$

0 divide

2 $\overline{) 5,325}$

② $5325 \div 25 =$

02 Multiply

25 $\overline{) 5,325}$

50

③ $5325 \div 25 =$

02 Subtract

25 $\overline{) 5,325}$

- 50

3

④ $5325 \div 25 = 213$

0213 Bring down

25 $\overline{) 5,325}$

- 50

32

- 25

75

- 75

00 Repeat

Example 1 Find the quotient :

①

03

14 $\overline{) 4,995}$

42

79

70

95

84

11

$14 \times 1 = 14$

$14 \times 2 = 28$

$14 \times 3 = 42$

$14 \times 4 = 56$

$14 \times 5 = 70$

$14 \times 6 = 84$

② $192 \div 32 =$

32 $\overline{) 192}$



3

$$8,014 \div 46 = \dots\dots\dots$$

$$46 \overline{) 8,014}$$

4

$$543 \div 65 = \dots\dots\dots$$

$$65 \overline{) 543}$$

5

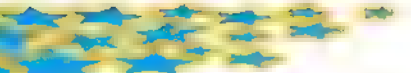
$$6,203 \div 11 = \dots\dots\dots$$

$$11 \overline{) 6,203}$$

6

$$9,363 \div 31 = \dots\dots\dots$$

$$31 \overline{) 9,363}$$



Exercise 1 Find the quotient :

③ $1,515 \div 15 = \dots\dots\dots$

$$15 \overline{) 1,515}$$

④ $1,818 \div 18 = \dots\dots\dots$

$$18 \overline{) 1,818}$$

⑤ $2,028 \div 13 = \dots\dots\dots$

$$13 \overline{) 2,028}$$

⑥ $16,960 \div 64 = \dots\dots\dots$

$$64 \overline{) 16,960}$$



① Find the quotient :

③

$$4,251 \div 34 = \dots\dots\dots$$

$$34 \overline{) 4,251}$$

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

④

$$8,184 \div 24 = \dots\dots\dots$$

$$24 \overline{) 8,184}$$

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

⑤

$$6,040 \div 45 = \dots\dots\dots$$

$$45 \overline{) 6,040}$$

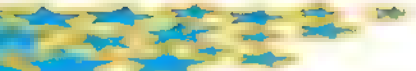
.....
.....
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.....
.....

⑥

$$2,175 \div 15 = \dots\dots\dots$$

$$15 \overline{) 2,175}$$

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....



Lesson 5

Standard algorithm to divide

- ① A baker made 140 servings of baklava for a party . if each baking tray hold 12 Servings of a baklava , how many trays will be needed to hold all the baklava ?

- ②if the price of 16 books 560 pounds , find the price of each book ?

- ③A primary school has 588 pupils , it wanted to distribute equally among 14 classes How many pupils in each class ?





Multiplying by power of ten

Multiplying decimals by whole number

Learn

Multiplying by $\times 10$, $\times 100$ and $\times 1,000$

To multiply by 10 move the point one place to right

To multiply by 100 move the point two places to right

To multiply by 1,000 move the point three places to right



Right

① $4 \times 10 = 40$

② $712.5 \times 10 = 7,125$

③ $562.4 \times 10 = 5,624$

① $4 \times 100 = 400$

② $712.5 \times 100 = 71,250$

③ $562.4 \times 100 = 56,240$

① $4 \times 1,000 = 4,000$

② $712.5 \times 1,000 = 712,500$

③ $562.4 \times 1,000 = 562,400$

Example 1 Complete :

① $23.14 \times 10 = \dots\dots\dots$

② $7.125 \times 10 = \dots\dots\dots$

③ $562.4 \times 10 = \dots\dots\dots$

④ $0.002 \times 10 = \dots\dots\dots$

⑤ $41.807 \times 10 = \dots\dots\dots$

① $23.14 \times 100 = \dots\dots\dots$

② $7.125 \times 100 = \dots\dots\dots$

③ $562.4 \times 100 = \dots\dots\dots$

④ $0.002 \times 100 = \dots\dots\dots$

⑤ $41.807 \times 100 = \dots\dots\dots$

① $23.14 \times 1000 = \dots\dots\dots$

② $7.125 \times 1000 = \dots\dots\dots$

③ $562.4 \times 1000 = \dots\dots\dots$

④ $0.002 \times 1000 = \dots\dots\dots$

⑤ $41.807 \times 1000 = \dots\dots\dots$

Exercise 1 Complete :

① $14.6 \times 10 = \dots\dots\dots$

② $56.71 \times 10 = \dots\dots\dots$

③ $4.635 \times 10 = \dots\dots\dots$

④ $14.6 \times 100 = \dots\dots\dots$

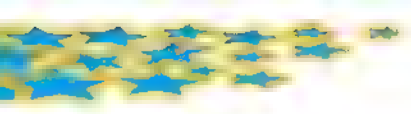
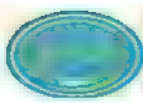
⑤ $56.71 \times 100 = \dots\dots\dots$

⑥ $4.635 \times 100 = \dots\dots\dots$

⑦ $14.6 \times 1000 = \dots\dots\dots$

⑧ $56.71 \times 1000 = \dots\dots\dots$

⑨ $4.635 \times 1000 = \dots\dots\dots$



Learn

Multiplying by $\times 0.1$, $\times 0.01$ and $\times 0.001$



Left

To multiply by 0.1 move the point one place to left

To multiply by 0.01 move the point two places to left

To multiply by 0.001 move the point three places to left

① $4 \times 0.1 = 0.4$

② $712.5 \times 0.1 = 71.25$

③ $562.4 \times 0.1 = 56.24$

① $4 \times 0.01 = 0.04$

② $712.5 \times 0.01 = 7.125$

③ $562.4 \times 0.01 = 5.624$

① $4 \times 0.001 = 0.004$

② $712.5 \times 0.001 = 0.7125$

③ $562.4 \times 0.001 = 0.5624$

Example 1 Complete :

① $23.14 \times 0.1 = \dots\dots\dots$

② $7.125 \times 0.1 = \dots\dots\dots$

③ $562.4 \times 0.1 = \dots\dots\dots$

④ $1.2 \times 0.1 = \dots\dots\dots$

⑤ $4180.7 \times 0.1 = \dots\dots\dots$

① $23.14 \times 0.01 = \dots\dots\dots$

② $7.125 \times 0.01 = \dots\dots\dots$

③ $562.4 \times 0.01 = \dots\dots\dots$

④ $1.2 \times 0.01 = \dots\dots\dots$

⑤ $4180.7 \times 0.01 = \dots\dots\dots$

① $23.14 \times 0.001 = \dots\dots\dots$

② $7.125 \times 0.001 = \dots\dots\dots$

③ $562.4 \times 0.001 = \dots\dots\dots$

④ $0.002 \times 0.001 = \dots\dots\dots$

⑤ $418.07 \times 0.001 = \dots\dots\dots$

Exercise 1 Complete :

① $14.6 \times 0.1 = \dots\dots\dots$

② $56.71 \times 0.1 = \dots\dots\dots$

③ $4.635 \times 0.1 = \dots\dots\dots$

④ $0.009 \times 0.1 = \dots\dots\dots$

⑤ $20.02 \times 0.1 = \dots\dots\dots$

① $14.6 \times 0.01 = \dots\dots\dots$

② $56.71 \times 0.01 = \dots\dots\dots$

③ $4.635 \times 0.01 = \dots\dots\dots$

④ $0.009 \times 0.01 = \dots\dots\dots$

⑤ $20.02 \times 0.01 = \dots\dots\dots$

① $14.6 \times 0.001 = \dots\dots\dots$

② $56.71 \times 0.001 = \dots\dots\dots$

③ $4.635 \times 0.001 = \dots\dots\dots$

④ $0.009 \times 0.001 = \dots\dots\dots$

⑤ $20.002 \times 0.001 = \dots\dots\dots$



Learn

Multiplying decimals by whole number

If $3 \times 2 = 6$, then $3 \times 0.2 = 0.6$ (one decimal right of the point)

and $4 \times 6 = 24$, then $4 \times 0.6 = 2.4$ (one decimal right of the point)

and $5 \times 25 = 125$, then $5 \times 0.25 = 1.25$ (two decimal right of the point)

$$\begin{array}{r} 214 \\ \times 7 \\ \hline 1,498 \end{array} \Rightarrow \begin{array}{r} 21.4 \\ \times 7 \\ \hline 149.8 \end{array} \Rightarrow \begin{array}{r} 2.14 \\ \times 7 \\ \hline 14.98 \end{array}$$

$$\begin{array}{r} 145 \\ \times 23 \\ \hline 3,335 \end{array} \Rightarrow \begin{array}{r} 145 \\ \times 2.3 \\ \hline 333.5 \end{array} \Rightarrow \begin{array}{r} 145 \\ \times 0.23 \\ \hline 33.35 \end{array}$$

Example 1 Answer the following :

①

$$\begin{array}{r} 15.3 \\ \times 3 \\ \hline \\ \hline \end{array}$$

②

$$\begin{array}{r} 4.19 \\ \times 8 \\ \hline \\ \hline \end{array}$$

③

$$\begin{array}{r} 425 \\ \times 0.6 \\ \hline \\ \hline \end{array}$$

④

$$\begin{array}{r} 1.15 \\ \times 18 \\ \hline \\ \hline \end{array}$$

⑤

$$\begin{array}{r} 0.24 \\ 12 \\ \hline \\ \hline + \\ \hline \\ \hline \end{array}$$

⑥

$$\begin{array}{r} 1.003 \\ \times 25 \\ \hline \\ \hline + \\ \hline \\ \hline \end{array}$$

⑦

$$\begin{array}{r} 164 \\ \times 0.6 \\ \hline \\ \hline + \\ \hline \\ \hline \end{array}$$

⑧

$$\begin{array}{r} 2.45 \\ \times 28 \\ \hline \\ \hline + \\ \hline \\ \hline \end{array}$$



Exercise 1 Answer the following :

①

$$\begin{array}{r} 427 \\ \times 0.2 \\ \hline \end{array}$$

②

$$\begin{array}{r} 15.3 \\ \times 5 \\ \hline \end{array}$$

③

$$\begin{array}{r} 65 \\ \times 2.3 \\ \hline \end{array}$$

④

$$\begin{array}{r} 15.4 \\ \times 35 \\ \hline \end{array}$$

Example 2 Complete :

①

$$3 \times 2 \text{ hundredths} = 6 \text{ hundredths} \\ = 0.06$$

②

$$4 \times 7 \text{ hundredths} = 28 \text{ hundredths} \\ = 0.28$$

③

$$5 \times 9 \text{ tenths} = \dots\dots\dots \text{ tenths} \\ = \dots\dots\dots$$

④

$$7 \times 9 \text{ tenths} = \dots\dots\dots \text{ tenths} \\ = \dots\dots\dots$$

⑤

$$8 \times 9 \text{ thousandths} = \dots \text{ thousandths} \\ = \dots\dots\dots$$

⑥

$$6 \times 7 \text{ hundredths} = \dots\dots \text{ hundredths} \\ = \dots\dots\dots$$

⑦

$$4 \times 15 \text{ thousandths} = \dots\dots \text{ thousandths} \\ = \dots\dots\dots$$

⑧

$$3 \times 5 \text{ tenths} = \dots\dots\dots \text{ tenths} \\ = \dots\dots\dots$$

Exercise 2 Complete :

①

$$2 \times 8 \text{ hundredths} = \dots\dots \text{ hundredths} \\ = \dots\dots\dots$$

②

$$3 \times 4 \text{ thousandths} = \dots \text{ thousandths} \\ = \dots\dots\dots$$

③

$$6 \times 7 \text{ tenths} = \dots\dots\dots \text{ tenths} \\ = \dots\dots\dots$$

④

$$4 \times 9 \text{ tenths} = \dots\dots\dots \text{ tenths} \\ = \dots\dots\dots$$

⑤

$$8 \times 3 \text{ thousandths} = \dots \text{ thousandths} \\ = \dots\dots\dots$$

⑥

$$6 \times 9 \text{ hundredths} = \dots\dots \text{ hundredths} \\ = \dots\dots\dots$$



Home Work

10

① Complete :

① $3.14 \times 10 = \dots\dots\dots$

② $5.127 \times 100 = \dots\dots\dots$

③ $2.5 \times 1,000 = \dots\dots\dots$

④ $0.002 \times 1,000 = \dots\dots\dots$

⑤ $82.8 \times 10 = \dots\dots\dots$

① $425 \times 0.1 = \dots\dots\dots$

② $536 \times 0.01 = \dots\dots\dots$

③ $875 \times 0.001 = \dots\dots\dots$

④ $35.14 \times 0.1 = \dots\dots\dots$

⑤ $4.5 \times 0.01 = \dots\dots\dots$

① $0.3 \times 3 = \dots\dots\dots$

② $7 \times 0.6 = \dots\dots\dots$

③ $5 \times 0.51 = \dots\dots\dots$

④ $6 \times 0.471 = \dots\dots\dots$

⑤ $1.2 \times 457 = \dots\dots\dots$

① Choose the correct answer :

① $7 \times 0.7 = \dots\dots\dots$ [49 , 4.9 , 0.49 , 0.049]

② $3.4 \times \dots\dots\dots = 340$ [10 , 100 , 1000 , 0.01]

③ $5 \times 0.1 = \dots\dots\dots$ [5 , 0.5 , 0.05 , 0.005]

④ $0.2 \times 10 = \dots\dots\dots$ [2 , 0.2 , 0.02 , 0.002]

⑤ $3 \times 0.6 = \dots\dots\dots$ [0,018 , 0.18 , 10.8 , 1.8]

⑥ $4 \times 8 \text{ Thousandths} = \dots\dots\dots$ [0.032 , 0.32 , 3.2 , 32]

⑦ $5 \times 25 \text{ tenths} = \dots\dots\dots$ [0.125 , 1.25 , 12.5 , 125]

⑧ $4 \times 4 \text{ Thousandths} = \dots\dots\dots$ [16,000 , 1.6 , 0.16 , 0.016]

⑨ $24.3 \times 0.01 = \dots\dots\dots$ [243 , 2.43 , 0.243 , 24.3]



Lessons 3-4

Multiplying tenths by tenths

Using the area model to multiply

Learn Multiplying tenths by tenths

$$\begin{array}{c} \text{one} \quad \text{one} \\ \text{place} \quad \text{place} \\ \hline 0.1 \times 0.1 = 0.01 \\ \text{two} \\ \text{place} \end{array}$$

$$\begin{array}{c} \text{one} \quad \text{one} \quad \text{two} \\ \text{place} \quad \text{place} \quad \text{place} \\ \hline 1.2 \times 0.7 = 0.84 \end{array}$$

Example 1 Find the products :

① $0.2 \times 0.3 = 0.06$

② $0.5 \times 0.2 = 0.10 = 0.1$

③ $1.2 \times 0.3 = 0.36$

④ $2.4 \times 0.2 = 0.48$

Example 2 Find the products :

① $0.7 \times 0.3 = \dots\dots\dots$

② $3.2 \times 0.4 = \dots\dots\dots$

③ $2.5 \times 0.5 = \dots\dots\dots$

④ $4.2 \times 0.1 = \dots\dots\dots$

⑤ $4.7 \times 0.3 = \dots\dots\dots$

⑥ $0.2 \times 2.4 = \dots\dots\dots$

⑦ $21.5 \times 0.7 = \dots\dots\dots$

⑧ $0.8 \times 0.8 = \dots\dots\dots$

⑨ $1.9 \times 0.4 = \dots\dots\dots$

Exercise 1 Find the products :

① $0.5 \times 0.5 = \dots\dots\dots$

② $3.4 \times 0.2 = \dots\dots\dots$

③ $2.7 \times 0.3 = \dots\dots\dots$

④ $1.2 \times 0.2 = \dots\dots\dots$

⑤ $4.7 \times 0.3 = \dots\dots\dots$

⑥ $0.2 \times 2.4 = \dots\dots\dots$

⑦ $21.5 \times 0.7 = \dots\dots\dots$

⑧ $0.9 \times 0.8 = \dots\dots\dots$

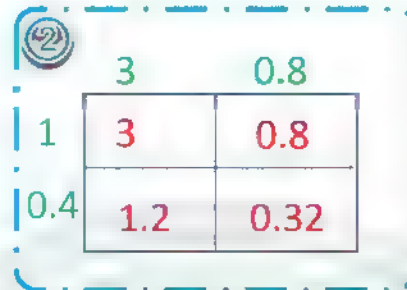
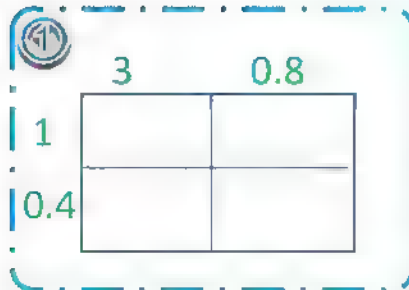
⑨ $0.3 \times 2.5 = \dots\dots\dots$



Learn

Using the area model to multiply decimals

How to evaluate 1.4×3.8 ?



Example 1 Find the products :

① $2.7 \times 5.3 = \dots\dots\dots$

② $3.2 \times 6.4 = \dots\dots\dots$

③ $2.4 \times 8.5 = \dots\dots\dots$

④ $4.2 \times 6.1 = \dots\dots\dots$



Exercise 1 Find the products :

① $2.7 \times 5.3 = \dots\dots\dots$

② $3.2 \times 6.4 = \dots\dots\dots$

Example 2 Choose the correct answer :

① Since $9 \times 3 = 27$, then $0.9 \times 0.03 = \dots\dots\dots$ [27 , 2.7 , 0.27 , 0.027]

② Since $3 \times 15 = 45$, then $0.3 \times 1.5 = \dots\dots\dots$ [45 , 4.5 , 0.45 , 0.045]

③ Since $7.5 \times 4.3 = 32.25$, then $75 \times 0.43 = \dots\dots\dots$

[3.225 , 32.25 , 322.5 , 0.3225]

④ If area model of a problem is

	3	0.2
4	x	0.8
0.7	2.1	y

then $x + y = \dots\dots\dots$

[12 , 12.14 , 15 , 15.4]

④ If area model of a problem is

	L	0.8
M	15	0.8
0.4	1.2	0.32

then $L + M = \dots\dots\dots$

[8 , 15.14 , 15 , 8.15]



Home Work

10

① Find the products :

$$\textcircled{1} 0.5 \times 0.7 = \dots\dots\dots$$

$$\textcircled{2} 0.4 \times 0.2 = \dots\dots\dots$$

$$\textcircled{3} 0.7 \times 0.3 = \dots\dots\dots$$

$$\textcircled{4} 0.5 \times 0.9 = \dots\dots\dots$$

$$\textcircled{5} 0.4 \times 0.9 = \dots\dots\dots$$

$$\textcircled{6} 0.2 \times 3.4 = \dots\dots\dots$$

② Find the products by using area model :

$$\textcircled{1} 3.2 \times 4.3 = \dots\dots\dots$$

$$\textcircled{2} 2.8 \times 3.4 = \dots\dots\dots$$

$$\textcircled{3} 7.4 \times 2.5 = \dots\dots\dots$$

$$\textcircled{4} 6.2 \times 7.1 = \dots\dots\dots$$



Lessons 5-6

Multiplying decimals through the Hundredths and thousandths place



Ignore the decimal point



Multiply



Place the decimal point

Example 1 Find the product :

$$\begin{array}{r} 2.43 \\ \times 6.3 \\ + 729 \\ 14580 \\ \hline 15.309 \end{array}$$

Two decimal places
One decimal place
three decimal place

$$\begin{array}{r} 4.47 \\ \times 5.2 \\ \hline 894 \\ + 22350 \\ \hline 23.244 \end{array}$$

$$\begin{array}{r} 2.03 \\ \times 0.07 \\ \hline 0.1421 \end{array}$$



$$\begin{array}{r} 3.56 \\ \times 0.24 \\ \hline \end{array}$$



$$\begin{array}{r} 12.7 \\ \times 5.3 \\ \hline \end{array}$$



$$\begin{array}{r} 1.32 \\ \times 0.15 \\ \hline \end{array}$$



$$\begin{array}{r} 2.04 \\ \times 0.8 \\ \hline \end{array}$$



$$\begin{array}{r} 4.47 \\ \times 5.2 \\ \hline \end{array}$$



$$\begin{array}{r} 25.6 \\ \times 1.5 \\ \hline \end{array}$$



$$\begin{array}{r} 7.25 \\ \times 6.1 \\ \hline \end{array}$$



$$\begin{array}{r} 562 \\ \times 0.03 \\ \hline \end{array}$$



Exercise 1 Find the product :

①

$$\begin{array}{r} 40.7 \\ \times 3.2 \\ \hline \end{array}$$

②

$$\begin{array}{r} 62.4 \\ \times 1.5 \\ \hline \end{array}$$

③

$$\begin{array}{r} 7.14 \\ \times 2.1 \\ \hline \end{array}$$

④

$$\begin{array}{r} 585 \\ \times 0.3 \\ \hline \end{array}$$

Example 2 Compare using [$>$, $=$, $<$] :

① 0.318×1.5 3.18×0.15

② 0.214×38 2.14×3.8

③ 03.45×2.1 34.5×0.21

④ 0.045×3.6 45×0.036

⑤ 574×0.126 57.4×1.26

⑥ 74.2×3.5 7.42×35

⑦ 3.87×3.5 38.7×0.35

⑧ 458×4.52 45.8×4.52

⑨ 0.258×1.7 2.58×0.17

⑩ 714×1.5 7.14×0.15

Exercise 1 Compare using [$>$, $=$, $<$] :

① 0.528×1.5 5.28×0.15

② 0.214×38 2.14×3.8

③ 03.05×2.4 30.5×0.24

④ 0.015×5.6 15×0.56

⑤ 521×8.26 52.1×826

⑥ 369×3.5 36.9×35

Home Work

20

① Find the products :

①
$$\begin{array}{r} 4.47 \\ \times 5.2 \\ \hline \end{array}$$

②
$$\begin{array}{r} 25.6 \\ \times 1.5 \\ \hline \end{array}$$

③
$$\begin{array}{r} 7.25 \\ \times 6.1 \\ \hline \end{array}$$

④
$$\begin{array}{r} 562 \\ \times 0.03 \\ \hline \end{array}$$

⑤
$$\begin{array}{r} 17.2 \\ \times 0.5 \\ \hline \end{array}$$

⑥
$$\begin{array}{r} 536 \\ \times 0.23 \\ \hline \end{array}$$

⑦
$$\begin{array}{r} 963 \\ \times 0.07 \\ \hline \end{array}$$

⑧
$$\begin{array}{r} 75.3 \\ \times 1.5 \\ \hline \end{array}$$

② Compare using [$>$, $=$, $<$]

① 0.416×1.5 41.6×0.15

② 0.023×38 2.3×3.8

③ 03.15×2.4 315×0.24

④ 0.015×5 15×0.005

⑤ 121×8.06 12.1×806

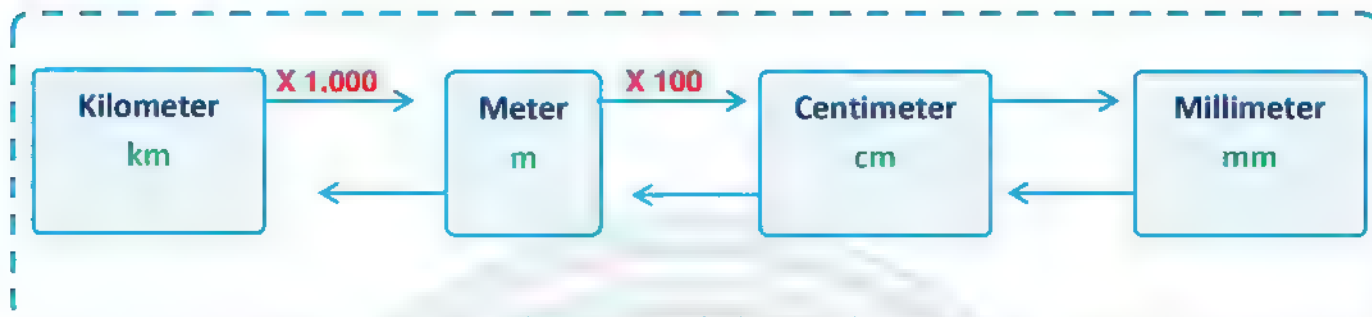
⑥ 32.8×3.5 32.8×35



Lessons 7-8

decimals and the metric system
measurement decimals and power of ten

Learn



Example 1 Complete

- ① $7.54 \text{ m} = \dots 754 \dots \text{ cm}$ (Conversion factor: $\times 100$)
- ② $14.16 \text{ mm} = \dots 1.416 \dots \text{ cm}$ (Conversion factor: $\times 0.1$)
- ③ $255.2 \text{ cm} = \dots 2.552 \dots \text{ m}$ (Conversion factor: $\times 0.01$)
- ④ $4,620 \text{ m} = \dots 4.62 \dots \text{ km}$ (Conversion factor: $\times 0.001$)
- ③ $1.14 \text{ cm} = \dots 11.4 \dots \text{ mm}$ (Conversion factor: $\times 10$)
- ④ $4,620 \text{ km} = \dots 4.62 \dots \text{ m}$ (Conversion factor: $\times 1000$)

Exercise 1 Complete

- ① $3.54 \text{ km} = \dots \text{ m}$
- ② $7.456 \text{ m} = \dots \text{ cm}$
- ③ $41.25 \text{ cm} \dots \text{ mm}$
- ④ $4,620 \text{ m} = \dots \text{ km}$
- ③ $45.4 \text{ cm} = \dots \text{ m}$
- ④ $75.3 \text{ cm} = \dots \text{ m}$



kilogram (kg)

 $\times 1,000$  $\times 0.001$

gram (g)

Metric units of mass

Liter (L)

 $\times 1,000$  $\times 0.001$

Milliliter (mL)

Metric units of capacity

Example 2 Complete $\times 1000$

①

$7.54 \text{ kg} = \dots 7540 \dots \text{g}$

 $\times 1000$

③

$2.425 \text{ kg} = \dots 2,425 \dots \text{g}$

 $\times 0.001$

⑤

$41.6 \text{ g} = \dots 0.0416 \dots \text{kg}$

 $\times 1000$

②

$7.54 \text{ L} = \dots 7540 \dots \text{ml}$

 $\times 1000$

④

$0.025 \text{ L} = \dots 25 \dots \text{ml}$

 $\times 0.001$

⑥

$582 \text{ ml} = \dots 0.528 \dots \text{L}$

Exercise 2 Complete

①

$0.5 \text{ kg} = \dots \text{g}$

②

$0.25 \text{ L} = \dots \text{ml}$

③

$8.12 \text{ kg} = \dots \text{g}$

④

$7.3 \text{ L} = \dots \text{ml}$

⑤

$745.6 \text{ g} = \dots \text{kg}$

⑥

$75 \text{ ml} = \dots \text{L}$

⑦

$418 \text{ g} = \dots \text{kg}$

⑧

$761.1 \text{ ml} = \dots \text{L}$

**Example 3** **Complete**

① $5.7 \text{ L} = \dots\dots\dots \text{ ml}$

② $7,400 \text{ ml} = \dots\dots\dots \text{ L}$

③ $3.02 \text{ kg} = \dots\dots\dots \text{ g}$

④ $2.5 \text{ L} = \dots\dots\dots \text{ ml}$

⑤ $140 \text{ g} = \dots\dots\dots \text{ kg}$

⑥ $317 \text{ kg} = \dots\dots\dots \text{ g}$

⑦ $5 \text{ L} - 3,200 \text{ ml} = \dots\dots\dots \text{ L}$

⑧ $15.6 \text{ kg} + 1,800 \text{ g} = \dots\dots\dots \text{ kg}$

Example 4 **Put** [$>$, $=$, $<$]

① $2,180 \text{ cm} \bigcirc 2.18 \text{ m}$

② $0.41 \text{ kg} \bigcirc 416 \text{ g}$

③ $0.005 \text{ L} \bigcirc 5 \text{ ml}$

④ $24 \text{ mm} \bigcirc 0.24 \text{ cm}$

⑤ $0.088 \text{ m} \bigcirc 8.7 \text{ cm}$

⑥ $7.1 \text{ L} \bigcirc 715 \text{ ml}$

⑦ $8 \text{ g} \bigcirc 0.08 \text{ kg}$

⑧ $0.01 \text{ km} \bigcirc 7 \text{ m}$



Home Work

20

① **Complete**

① $0.43 \text{ L} = \dots\dots\dots \text{ ml}$

② $3,250 \text{ ml} = \dots\dots\dots \text{ L}$

③ $14.1 \text{ kg} = \dots\dots\dots \text{ g}$

④ $2.5 \text{ L} = \dots\dots\dots \text{ ml}$

⑤ $2,647 \text{ g} = \dots\dots\dots \text{ kg}$

⑥ $0.048 \text{ kg} = \dots\dots\dots \text{ g}$

⑦ $2,647 \text{ km} = \dots\dots\dots \text{ m}$

⑧ $3.02 \text{ m} = \dots\dots\dots \text{ cm}$

⑨ $3 \text{ L} + 243 \text{ ml} = \dots\dots\dots \text{ L}$

⑩ $3.4 \text{ kg} + 1,500 \text{ g} = \dots\dots\dots \text{ kg}$

② **Put** [$>$, $=$, $<$]

① $3,450 \text{ cm} \bigcirc 3.45 \text{ m}$

② $0.12 \text{ kg} \bigcirc 120 \text{ g}$

③ $0.007 \text{ L} \bigcirc 8 \text{ ml}$

④ $63 \text{ mm} \bigcirc 0.63 \text{ cm}$

⑤ $0.042 \text{ m} \bigcirc 4.2 \text{ cm}$

⑥ $6.5 \text{ L} \bigcirc 650 \text{ ml}$

⑦ $9,421 \text{ g} \bigcirc 94.21 \text{ kg}$

⑧ $0.07 \text{ km} \bigcirc 7 \text{ m}$

⑨ $0.4 \text{ cm} \bigcirc 40 \text{ mm}$

⑩ $0.6 \text{ m} \bigcirc 60 \text{ cm}$



Lesson 9

Solving multistep story problems

①dalia made a liter of sugar cans juice . she drank 320 ml , her father drank 0.25 L , how much sugar can juice is remaining ?

.....

.....

②Hoda is stride 0.72 meters , how far in meters will Hoda walk after Talking 1000 stride ?

.....

.....

③Samy bought 14.5 meters of clothes . the price of each meter Is 3.5 pounds , what is the price of cloths ?

.....

.....

.....

④sandy bought 450 ml of mango juice . her sister Martina drink 0.26 L . What is the remaining quantity of the mango juice ?

.....

.....

.....





Home Work

20

① **Answer the following**

- ① Eman saved 12.3 pounds each week . how much money she saved
In 10 weeks ?

- ② Amara went to the supermarket , she bought 1.5 kg of tomatoes , 875 g
Of peas , find the weight [in gram] of what Amara bought ?

- ③ Amgad needs to drink about 4,230 ml of water every day , how many
Liters of water does he need ?



Lessons 10-11

- *Dividing by power of ten*
- *patterns and relationships in powers*

Learn

Dividing by $\div 10$, $\div 100$ and $\div 1000$



Left

To divide by 10 move the point **one place** to left

To divide by 100 move the point **two places** to left

To divide by 1000 move the point **three places** to left

① $4 \div 10 = 0.4$

② $712.5 \div 10 = 71.25$

③ $562.4 \div 10 = 56.24$

① $4 \div 100 = 0.04$

② $712.5 \div 100 = 7.125$

③ $562.4 \div 100 = 5.624$

① $4 \div 1000 = 0.004$

② $712.5 \div 1000 = 0.7125$

③ $562.4 \div 1000 = 0.5624$

Example1 Complete :

① $23.14 \div 10 = \dots\dots\dots$

② $7.125 \div 100 = \dots\dots\dots$

③ $562.4 \div 100 = \dots\dots\dots$

④ $1.2 \div 10 = \dots\dots\dots$

⑤ $4180.7 \div 10 = \dots\dots\dots$

⑥ $2,314 \div 1000 = \dots\dots\dots$

⑦ $7,125 \div 1000 = \dots\dots\dots$

⑧ $562 \div 100 = \dots\dots\dots$

⑨ $0.02 \div 10 = \dots\dots\dots$

⑩ $418.07 \times \div 10 = \dots\dots\dots$

Exercise1 Complete :

① $3.01 \div 10 = \dots\dots\dots$

② $452 \div 100 = \dots\dots\dots$

③ $0.2 \div 100 = \dots\dots\dots$

④ $115.36 \div 10 = \dots\dots\dots$

⑤ $42.7 \div 10 = \dots\dots\dots$

⑥ $875 \div 1000 = \dots\dots\dots$



Learn

Multiplying by $\div 0.1$, $\div 0.01$ and $\div 0.001$

To multiply by 10 move the point one place to right

To multiply by 100 move the point two places to right

To multiply by 1,000 move the point three places to right



Right

① $4 \div 0.1 = 40$

② $712.5 \div 0.1 = 7,125$

③ $562.4 \div 0.1 = 5,624$

① $4 \div 0.01 = 400$

② $712.5 \div 0.01 = 71,250$

③ $562.4 \div 0.01 = 56,240$

① $4 \div 0.001 = 4,000$

② $712.5 \div 0.001 = 712,500$

③ $562.4 \div 0.001 = 562,400$

Example 1 Complete :

① $23.14 \div 0.1 = \dots\dots\dots$

② $7.125 \div 0.1 = \dots\dots\dots$

③ $562.4 \div 0.1 = \dots\dots\dots$

④ $0.002 \div 0.1 = \dots\dots\dots$

⑤ $4.807 \div 0.1 = \dots\dots\dots$

① $23.14 \div 0.01 = \dots\dots\dots$

② $7.125 \div 0.01 = \dots\dots\dots$

③ $562.4 \div 0.01 = \dots\dots\dots$

④ $0.002 \div 0.01 = \dots\dots\dots$

⑤ $4.807 \div 0.01 = \dots\dots\dots$

① $23.14 \div 0.001 = \dots\dots\dots$

② $7.125 \div 0.001 = \dots\dots\dots$

③ $562.4 \div 0.001 = \dots\dots\dots$

④ $0.002 \div 0.001 = \dots\dots\dots$

⑤ $4.807 \div 0.001 = \dots\dots\dots$

Exercise 1 Complete :

① $15.2 \div 0.1 = \dots\dots\dots$

② $4.56 \div 0.1 = \dots\dots\dots$

③ $36.45 \div 0.1 = \dots\dots\dots$

① $15.2 \div 0.01 = \dots\dots\dots$

② $4.56 \div 0.01 = \dots\dots\dots$

③ $36.45 \div 0.01 = \dots\dots\dots$

① $15.2 \div 0.001 = \dots\dots\dots$

② $4.56 \div 0.001 = \dots\dots\dots$

③ $36.45 \div 0.001 = \dots\dots\dots$

$\div 10$

$\div 100$

$\div 1000$

$\times 0.1$

$\times 0.01$

$\times 0.001$

Left



$\times 10$

$\times 100$

$\times 1000$

$\div 0.1$

$\div 0.01$

$\div 0.001$



Right

**Home Work****15****Choose the correct answer :**

① $6.3 \times 100 = \dots\dots\dots$

A- 0.063

B- 6300

C- 6.300

D- 630

② $536 \times 0.01 =$

A- 0.536

B- 5.36

C- 53.6

D- 5.3600

③ 52×0.1

A- 52

B- 5,200,000

C- 5.2

D- 0.052

④ 305×100

A- 30,500

B- 30.5000

C- 305

D- 3,050

Complete :-

① $0.4 \div 0.001 = \dots\dots\dots$

② $2.35 \times 10 = \dots\dots\dots$

③ $33.56 \times 100 = 33.56 \div \dots\dots\dots$

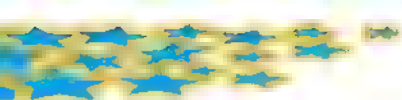
④ $28.4 \times \dots\dots\dots = 0.284$

⑤ $3.4 \text{ m} = \dots\dots\dots \text{ km}$

⑥ $712 \text{ ml} = \dots\dots\dots \text{ L}$

Answer :

What is the height of 10 floors in a building? if the height of each floor 280 cm in meters ?



Lessons 12-13

- Dividing decimals by whole numbers
- Dividing decimals by decimals

Learn Dividing decimals by whole numbers

How can you evaluate $210 \div 40$ without remainder ?

$$\begin{array}{r} 5 \\ 40 \overline{) 210} \\ \underline{200} \\ 10 \end{array}$$

Remainder

Then :

Then $210 \div 40 = 5 \text{ r } 10$

$$\begin{array}{r} 5.25 \\ 40 \overline{) 210.00} \\ \underline{200} \\ 100 \\ \underline{80} \\ 200 \\ \underline{200} \\ 000 \end{array}$$

Then $210 \div 40 = 5.25$

Example 1 Divide :

① $155 \div 50 = \dots\dots\dots$

$$\begin{array}{r} 50 \overline{) 155} \end{array}$$

② $58.05 \div 15 = \dots\dots\dots$

$$\begin{array}{r} 15 \overline{) 58.05} \end{array}$$

③ $9 \div 8 = \dots\dots\dots$

$$\begin{array}{r} 8 \overline{) 9} \end{array}$$



④

$131.5 \div 25 = \dots\dots\dots$

$$\begin{array}{r} 25 \overline{) 131.5} \end{array}$$

⑤

$128 \div 5 = \dots\dots\dots$

$$\begin{array}{r} 5 \overline{) 128} \end{array}$$

⑥

$3 \div 40 = \dots\dots\dots$

$$\begin{array}{r} 40 \overline{) 3} \end{array}$$

Exercise 1 Divide :

①

$151 \div 25 = \dots\dots\dots$

$$\begin{array}{r} 25 \overline{) 151} \end{array}$$

②

$333.2 \div 14 = \dots\dots\dots$

$$\begin{array}{r} 14 \overline{) 333.2} \end{array}$$

③

$3 \div 4 = \dots\dots\dots$

$$\begin{array}{r} 4 \overline{) 3} \end{array}$$



Learn

Infinite division

1

$$223.1 \div 9 = \dots\dots\dots$$

to the nearest hundredths

$$9 \overline{) 223.1}$$

2

$$1.21 \div 6 = \dots\dots\dots$$

to the nearest thousandths

$$6 \overline{) 1.21}$$

3

$$8 \div 3 = \dots\dots\dots$$

to the nearest tenths

$$3 \overline{) 8}$$

Exercise 2

Divide :

1

$$5.5 \div 3 = \dots\dots\dots$$

to the nearest hundredths

$$3 \overline{) 5.5}$$

2

$$5 \div 8 = \dots\dots\dots$$

$$8 \overline{) 5}$$

3

$$8 \div 7 = \dots\dots\dots$$

to the nearest tenths

$$7 \overline{) 8}$$



Learn Dividing decimals by decimals

To divide by a decimal, writing the **divisor** as a whole number

Do this by **multiplying the divisor and dividing by 10, 100 and 1000**

According to the number of places of the decimal part of the divisor.

Example 1 Divide :

①

$$\begin{array}{r} 3 \div 0.5 = \dots\dots\dots \\ \times 10 \quad \times 10 \\ \hline 30 \div 5 = 6 \end{array}$$

②

$$3.2 \div 0.4 = \dots\dots\dots$$

③

$$0.35 \div 0.07 = \dots\dots\dots$$

④

$$1.5 \div 0.3 = \dots\dots\dots$$

Exercise 1 Divide :

①

$$2.4 \div 0.4 = \dots\dots\dots$$

②

$$0.42 \div 0.06 = \dots\dots\dots$$

③

$$3.2 \div 0.4 = \dots\dots\dots$$

④

$$3.2 \div 0.4 = \dots\dots\dots$$



Example 2

Divide :

you may need to add a zero or More to the right of the dividend

①

$$2.4 \div 0.4 = \dots\dots\dots$$

②

$$14.1 \div 1.41 = \dots\dots\dots$$

①

$$2.4 \div 0.4 = \dots\dots\dots$$

②

$$14.1 \div 1.41 = \dots\dots\dots$$



Exercise 2

Find the quotient .

1 $34.4 \div 0.4 = \dots\dots\dots$

2 $3.175 \div 2.5 = \dots\dots\dots$

3 $1.14 \div 0.95 = \dots\dots\dots$

4 $1.12 \div 0.32 = \dots\dots\dots$



Home work

Complete :

① $3.6 \div 0.4 = \dots\dots\dots$

② $7.2 \div 0.8 = \dots\dots\dots$

③ $0.33 \div 0.11 = \dots\dots\dots$

④ $0.28 \div 0.004 = \dots\dots\dots$

Choose the correct answer :

① $80 \div 0.08 = \dots\dots\dots$ [A- 10 B- 100 C- 1000 D- 8000]

② $32.5 \div \dots\dots\dots = 100$ [A- 3.25 B- 0.0325 C- 0.325 D- 325]

③ 43 days \approx $\dots\dots\dots$ days to the nearest week

[A- 4 B- 5 C- 6 D- 7]

④ $1.6 \div 0.2 = \dots\dots\dots$ [A- 8 B- 6 C- 0.8 D- 12]

Find the quotient:-

① $15.64 \div 3.4 = \dots\dots\dots$

② $64.5 \div 4.3 = \dots\dots\dots$



Unit 6

Lessons 1-2

numerical expression

numerical expression with grouping symbols

Learn

Order of operation



Salma

$$3 + 0.2 \times 5$$

$$3 + 1.0 = 3$$

$$3 + 0.2 \times 5$$

$$3.2 \times 5 = 16$$



Adam

Which answer is the correct ?

Salma's or Adam's

First

brackets
() or []

Second

Multiply or divide from the left
 \times or \div

Third

Addition or subtract from the left
 $+$ or $-$

Example 1 Complete :

1 $12 + (9 - 2) \times 8$

Solution

$$= 12 + (9 - 2) \times 8 \text{ brackets first}$$

$$= 12 + 7 \times 8 \text{ multiply}$$

$$= 12 + 56 \text{ add}$$

$$= 68$$

2 $53 \times 2 + 54 \div 1.5$

solution

$$= 53 \times 2 + 54 \div 1.5 \text{ multiply, divide}$$

$$= 106 + 36 \text{ add}$$

$$= 142$$



3 $40 \div 8 \times 0.01 + 14.95$

.....
.....
.....
.....

4 $12 + 24 \div 4 + 8$

.....
.....
.....
.....

Exercise 1

Use the order of operation to find .

1 $10 \times 4 - 3$

.....
.....
.....
.....

2 $15 \div 3 + 2$

.....
.....
.....
.....

3 $3.6 \times (4 + 6) - 12$

.....
.....
.....
.....

4 $6 + 4 \times 2 - 14$

.....
.....
.....
.....

5 $8 + (2.4 \div 0.4) \times 3$

.....
.....
.....
.....

6 $(30 - 4) \times 2 + 5$

.....
.....
.....
.....

**Exercise 2** Choose the correct answer

1 the first operation to solve $88 - 14 \div 7 + 12 \times 33$ is

[A. subtract B. divide C. add D. multiply]

2 $7.6 \div 0.2 + 3.3 \times 10 = \dots\dots\dots$

[A. 15.2 B. 54 C. 71 D. 266]

3 $33 \div (2 + 9) \times 5 = \dots\dots\dots$

[A. 6 B. 7 C. 12 D. 15]

4 $10 + 4 \times 6 - 24 = \dots\dots\dots$

[A. 14 B. 24 C. 10 D. 216]

5 the second step to solve $9.3 \times 0.1 + 4.7 - 1.1$ is

[A. 9.3×0.1 B. 9.3×4.8 C. $0.93 + 4.7$ D. $0.93 + 1.1$]



Home work

10

Use the order of operation to find.

1 $150 \div 10 + 6 \times 1.5 - 5$

3 $8.4 \times (3.6 + 6.4) + 4$

5 $20 + [(4 + 2) \times 3]$

2 $40 - 10 \div 5$

4 $18 \div 3 \times 3$

6 $3 + 3.3 \div 1.1 - 6$

Choose the correct answer :-

1 the first operation to solve $12 + 20 \times 5 - 5$ is

[A. subtract B. divide C. add D. multiply]

2 $30 - 10 \times 3 + 6 = \dots\dots\dots$

[A. 26 B. 6 C. 20 D. 30]

3 $100 + 3.04 \times 100 = \dots\dots\dots$

[A. 404 B. 10,30 C. 304 D. 3.104]

4 $9 - 6 + 3 \times 2 = \dots\dots\dots$

[A. 6 B. 3 C. 0 D. 9]



Lesson 3

*Writing expression to represent scenarios***Example 1 :**

Add 22.7 and 35.3 then multiply the result by 3 .

Solution : $(22.7 + 35.3) \times 3 = 58 \times 3 = 174$

Example 2 :

subtract 3.1 from 4.62 then multiply the result by 2

Solution :

Example 3 :

Divide 93 by 0.3 and then add 40 after that divide the result by 5

Solution :

Exercise

Writing expression then evaluate the expression :

- ① add 7.4 and 2.3 then multiply the result by 10

Solution :

- ② subtract 12.4 from 26.8 then divide the result by 100

Solution :

- ③ find the difference between 10 and 9.27 , multiply by sum of 54 and 46

Solution :

- ④ add 32 to 25 and divide the result by 0.5

Solution :



Homework

14

Writing expression then evaluate the expression :

- 1 difference between 42 and 37 then multiply the sum of 2 and 8
.....
- 2 multiply 3.6 by 10 and add the result to 12.4
.....
- 3 divide the sum of 34.8 and 65.2 by 5
.....
- 4 add 64.2 to 12.6 , then multiply the result by 10
.....
- 5 add 18.7 to the result of dividing 45.6 by 10 then subtract the result from 99
.....
- 6 subtract 13.2 from the sum of 23.6 and 61.4
.....
- 7 divide the sum of 3.8 and 5.2 by 3
.....



Lesson 4

Identifying numerical pattern

Learn look number pattern find the rule.

Think what should I do to 2 to get 5 ? what should I do to 5 to get 8 ?



The rule
 $n + 3$

Example 1 Look at each table and determine the rule :

Input	Output
5	7
6	8
7	9
8	10

Rule :

Input	Output
4	1
8	2
12	3
16	4

Rule :

Input	Output
5	7
6	8
7	9
8	10

Rule :

Input	Output
5	4
6	5
7	6
8	9

Rule :

Example 2 Write the rule for each pattern , and complete :

- 52 , 44 , 36 , 28 , 20 , ...12.....,4..... Rule ... $n - 8$
- 23 , 27 ,, 35 , 39 , Rule
- 2 , 4 , 8 , 16 ,, 64 , Rule
- If the input is 8 and the rule is $n - 3$, then the output is
- If the rule is $n \times 3$, and the output is 18, then the input is



Exercise 1 Look at each table and determine the rule:

Input	Output
5	20
6	24
7	28
.....	36

Rule :

Input	Output
3	8
4	9
5	.....
.....	11

Rule :

Input	Output
9	6
12	.....
14	11
16	13

Rule :

Input	Output
50	10
45	9
40	.....
.....	6

Rule :

Exercise 2 Write the rule for each pattern , and complete :

① 17 , , 21 , 23 , , Rule

② , 8 , 15 , , 29 , Rule

③ 3 , 9 , 27 , , Rule

④ 1000 , 100 , 10 , , Rule

⑤ 3.5 , 4 , 4.5 , 5 , , , Rule

Exercise 3 Complete :

① The rule of the pattern : 3 , 7 , 11 , 15 , is

② The rule of the pattern : 3 , 6 , 12 , 24 , is

③ The rule of the pattern : 5 , 5.3 , 5.6 , 5.9 , is

④ If the input is 7 and the rule is $n+4$, then the output is

⑤ If the rule is $n+4$, and the output is 13, then the input is



Homework

① Look at each table and determine the rule:

Input	Output
2	5
6	9
10	13
.....	20

Rule :

Input	Output
3	6
5	10
7	.....
11	22

Rule :

Input	Output
9	7
12	.....
14	12
16	14

Rule :

Input	Output
2	10
3	15
4	.....
.....	30

Rule :

② Write the rule for each pattern , and complete :

① 19 , , 13 , 10 , , Rule

② , 7 , 13 , , 25 , Rule

③ 1 , 3 , 5 , , , Rule

④ 5 , 10 , 115 , , Rule

⑤ 1.5 , 2 , 2.5 , 3 , , , Rule

③ Complete :

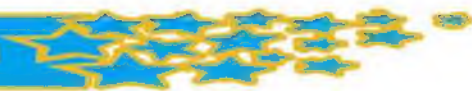
① The rule of the pattern : 4 , 8 , 12 , 16 , is

② The rule of the pattern : 2 , 4 , 8 , 16 , is

③ The rule of the pattern : 3 , 3.6 , 4.2 , 4.8 , is

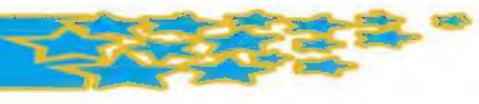
④ If the input is 3 and the rule is $n+4$, then the output is

⑤ If the rule is $n \div 4$, and the output is 12, then the input is



My little dictionary

[illegible][illegible]



My Work Paper





My Work Paper

